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ABSTRACT

This paper examines the financial status of public universities in Ontario, Canada, and makes the argument that they are under-funded by the Ontario government. An opening section notes the recent announcement by the government of funding levels for 1992-93, 1993-94, and 1994-95 which are below the projected rate of inflation and suggests that this under-funding is a continuation and worsening of a pattern of under-funding which began in the 1970s. Following sections examine specific issues in detail including the economic value of Ontario universities to the economy as a whole; comparison of support for universities with funding for other government supported agencies; comparisons with other provinces and with support for education in the United States; and an examination of the impact of the funding cuts on university income and expenditures. The bulk of the document contains 22 figures and 29 tables illustrating the argument advanced in the analysis. An appendix contains an update of the Ontario University Non-Salary Price Index. (JB)

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO 1992

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO: 1992

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The graphical and tabular data displayed in this report commence with the 1977-78 university fiscal year. This base year has been chosen because it was the last year in which the financial advice of the Ontario Council on University Affairs, the Government's advisory body on higher education, was accepted. The data presented end with the most current year for which information is available. This varies according to the subject matter being described. It is possible that different conclusions might be drawn from some of the data were more current information available.

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO

1992

The Treasurer of Ontario, the Honourable Floyd Laughren, announced earlier this year that provincial government operating grants to Ontario universities would increase by 1% in 1992-93, by an additional 2% in 1993-94, and another 2% in 1994-95. This multi-year approach to funding was intended, in the words of the Minister of Colleges and Universities, "to assist universities to plan and manage their resources with more certainty and to support their efforts to improve the delivery of programs and services to students."[1]

Simultaneously, this announcement alerted the province's universities to the prospect of operating grant increases which were below the projected rate of inflation. Even with the provincial government predicting the Ontario CPI to fall to 2.0% in 1992, 2.6% in 1993, 2.4% in 1994, and 2.4% in 1995, the announced grant increases were still below these rates of increase.[2] The provincial government was indicating that it was unable or unwilling to fund Ontario's university system at a level equivalent to that of the 1991-92 fiscal year. As this document will show, the prospects for universities over the next three years are for the continuation and worsening of a pattern of underfunding which began in the 1970s.

The Economic Value of Ontario Universities

What is not so clear is why this should be the case. Figures 1, 2 and 3 and Tables 1 and 2 provide clear evidence of the economic value of Ontario universities and the education which they provide. *Unemployment rates among university graduates are consistently the lowest of any sector of our economy.* Even in the middle of a recession, graduates of a university are less than half as likely to be unemployed as the rest of the work force. Compared to people with eight or less years of education, university graduates are less than one third as likely to be unemployed.

---

[1] Honourable Richard Allen, Minister, Memorandum dated January 22, 1992 to Chairs, Boards of Governors and Executive Heads.

[2] Honourable Floyd Laughren, *1992 Ontario Budget*, page 58.

Participation rates measure the number of people in the labour force as a percentage of the total population age 15 years or older. Figure 2 and Table 1 indicate that, as of the end of 1991, *over 84% of the population with university degrees participated in the labour force. This is considerably higher than the participation rate for the remainder of the population.* It also means that approximately 80% of the population with university degrees were employed in the labour force while only about 58% of the total adult population were gainfully employed. The remainder were either unemployed or were not members of the labour force.

Figure 3 and Table 2 demonstrate the relationship between income levels and educational attainment using data from the 1986 census of Canada. *People with university degrees earn a significantly higher income than people without those degrees.* In fact, in 1985, people with one degree earned about 58% more than the average for the population as a whole. People with more than one degree earned almost double the national average.

Future projections of labour force demand suggest that these differences will increase. With the creation of new jobs requiring university level training, the demand for university graduates will grow. Yet the Province of Ontario's spending priorities do not reflect these needs.

Universities as a Priority in Ontario

The Treasurer's announcement of 1-2-2 percentage increases also applied to hospitals, school boards, municipalities, and colleges of applied arts and technology. However, unlike some of those other transfer agencies, *the Treasurer's announcement came, for universities, as the latest of a series of cutbacks.*

As Figure 4 and Table 3 indicate, *for each client served by hospitals and by elementary and secondary schools, there has been a steady increase in the level of expenditures, even after the effects of inflation have been eliminated.* The constant dollar value of spending by hospitals was 40% higher in 1989-90 than it was in 1977-78. Elementary and secondary schools were spending 37% more for each student in 1990-91 than they were in 1977-78. By way of contrast, universities spent 13% less for each student in 1990-91 than they did in 1977-78.

Medical doctors are expected to receive over $5 billion in payments from OHIP during 1992-93. As Figure 5 and Table 4 demonstrate, this represents a 128%

increase in constant dollar terms since 1977-78. During this time period, provincial grants to universities increased 15%, an increase which was far less than the growth of enrolment. *Salary expenses for faculty with academic rank increased at about the same rate as government grants, but grew far less than the rate for payments to medical doctors.*

Community and social service transfer payments will cost the Ontario government $3.8 billion in 1992-93. As Figure 6 and Table 5 show, this represents a 318% increase in expenditures since 1977-78. Even before the recession began in 1990, community and social services were costing the Ontario taxpayer more than twice as much in constant dollar terms as they were a decade before.

This sharp divergence between the level of financial support to universities and that of other government supported endeavours is the result of year after year grant increases to universities which have been below those to other publicly supported agencies. As Figure 7 and Table 6 indicate, in almost every year since 1977-78 operating grants to universities have increased **less** than government expenditures as a whole. On average, the Ontario government increased its spending each year by more than a third more than it increased its grants to universities.

For the government, this has meant that a smaller and smaller share of its resources must go to funding the university system. As Figure 8 and Table 7 demonstrate, since 1977-78 the universities' share of the budget has declined from almost 6% to just over 4% of the total. This is enough of a decline to have cost the universities $917 million in the current year alone. In fact, the universities' declining share of the budget has been such a constant feature that, in 1992-93, they would have received $133 million more if their position had been restored to the 1990 level.

Ontario's support of its universities has not kept up with the province's rate of economic development. As Figure 9 and Table 8 show, since 1977-78 grants to universities have grown 15% less than the economy as a whole, as measured by the Gross Domestic Product. In contrast, the provincial government has grown about 25% **more** than the economy during this time period.

Interprovincial Comparisons

Government support of this country's universities has been declining for most of the past decade. In most provinces, the level of operating grants to universities

for each student enrolled is less now, in constant dollars, than it was at the beginning of the 1980s. *Ontario is unique in that the level of operating grants from government was far below average at the beginning of this period and declined faster and further than in most other provinces.*

Figure 10 and Table 9 demonstrate the extent to which operating grants per student have declined in most provinces and the extent to which Ontario universities have fallen behind those in other provinces. *In the most recent years, only Nova Scotia has provided less money per student than Ontario.* In 1991-92, other provincial governments provided $937 more for each full-time student than the Ontario government provided to its universities. Table 10 indicates that when the relative wealth of each province is taken into account, only British Columbia spends less than Ontario on operating grants to its universities.

Table 11 suggests that, no matter which indicator is used, Ontario universities are among the most poorly funded in the country. *Whether on a per student basis, on a per capita of provincial population basis, or on the basis of some measure of wealth or income, Ontario universities rank at or near the bottom.*

This is because grants to universities have not grown as fast as the economy as a whole. This is true of most provinces, but growth rates in Ontario have been far below the national average. As Figure 11 and Table 12 demonstrate, grants to universities have grown more slowly than the Gross Domestic Product in all but one province, Newfoundland; and in only two provinces - British Columbia and Prince Edward Island - have grants grown more slowly than in Ontario.

This lack of funding for Ontario universities, relative to those in other provinces, does not apply to other transfer agencies. As Table 13 shows, funding for Ontario hospitals in 1988-89 was high enough to rank this province fourth; for schools Ontario ranked second among the ten provinces. In that same year, funding for Ontario universities ranked this province in tenth place.

International Comparisons

Universities in Ontario and, in fact, Canada as a whole are significantly less well funded than those in the United States and the differences between the two jurisdictions have been increasing. Figure 12 suggests that, although funding from provincial and state governments declined with the recession of the early 1980s, after the 1982-83 fiscal year the situation improved considerably in the United States but continued to worsen in Canada. While grants per student, in constant

dollar terms, were about the same in 1990-91 as they were in 1977-78 in the United States, in Canada they had declined more than 20%.

Figure 13 compares Ontario with 11 large and Great Lakes states and with the United States as a whole during this period between 1982-83 and 1990-91. Of the 11 states, only two - New York and Texas - did worse than Ontario in terms of increasing their level of operating grants to universities. The remaining nine states, as well as the United States as a whole, far exceeded Ontario in the growth of operating grants.

These growth rates were in addition to levels of funding in the United States which were far greater than those in Ontario. Figure 14 and Table 14 compare research doctoral level universities (generally the largest, most advanced institutions in each state) in these same 11 states with similar institutions in Ontario. They suggest that *underfunding of Ontario universities is not merely a case of inadequate levels of government grants. Tuition fees and federal grants and contracts are greater at both public and private universities in the United States. Public universities receive considerably more in state government grants and private universities receive more in the way of gifts and income from endowments than do universities in Ontario.*

Figure 15 and Table 15 suggest that in every area, from instruction through research, academic support such as libraries and the computer centre, student services, administrative support, operation and maintenance of the physical plant, scholarships and fellowships, universities in the United States - both public and private - are able to spend more than similar institutions in Ontario.

To demonstrate the magnitude of the problem, two universities in Ontario were chosen for specific comparisons with similar institutions in the United States. Table 16 compares the University of Toronto with eight large, public universities in the United States. Only two were less well funded than Toronto. The eight were, on average, receiving about 20% more revenue than Toronto and one received 40% more income than Toronto. The greatest differences were in the income received from federal government grants and contracts and from tuition fees.

Table 17 compares Queen's University with 10 public and five private universities of a similar size and type in the United States. About half the public institutions are not as well funded as Queen's, but all of the private universities - including several prestige institutions - are much better off than Queen's. In fact, the

average income for these five universities is more than double the level for Queen's.

The Impact on University Income and Expenditures

All of this cannot help but have a major impact on the way Ontario universities conduct their business. Figure 16 is a summary of what has happened to the two largest sources of operating revenue since 1977-78. Operating grants and tuition fees together represent over 95% of operating income. Tuition fees collected from each student have just barely kept ahead of inflation while operating grants from the provincial government would have been worth $1,583 more to universities for each student enrolled if funding levels had kept up with those of 1977-78.

In effect, while demanding that Ontario universities be open and accessible to large numbers of students, the provincial government has failed to fund a large part of the resulting enrolment increase. The level of operating grant support received from the government for each student in 1977-78, adjusted for inflation and applied to subsequent years, is utilized in Figure 17 and Table 18. *The data suggest that approximately 21% of the current enrolment, or 56 thousand full-time equivalent students, are not being funded by the Government of Ontario.* In other words, given current levels of government funding, the number of students enrolled at Ontario universities would have to be reduced by 21% to produce funding levels per student of equivalent value to those received in 1977-78.

To compensate for this loss of income from the provincial government, universities have taken various measures to maintain financial viability. Table 19 demonstrates the degree to which they have been able to increase income from gifts, donations, contracts and grants from the private sector over the past eight years. Even adjusting for inflation, the value of these private sector contributions has increased by 58% since 1983-84.

Compared to other provinces, *Ontario universities have come to rely more heavily on these other forms of income - investment income plus gifts, donations, contracts and grants from the private sector - and on tuition and other fees.* Table 20 suggests that Ontario universities are more reliant on other income than are universities in any other province. Only New Brunswick and Nova Scotia universities rely on tuition fees more than Ontario universities.

Despite these measures to improve their financial situation, many universities in Ontario are operating in a deficit position. Table 21 identifies those institutions

which had accumulated deficits in their unappropriated operating funds at the end of the 1990-91 fiscal year. *Well over half of Ontario's universities plus several of their affiliated and federated colleges had accumulated deficits which totalled $59 million.*

In addition, some of the measures taken have not been without negative impact. *Sponsored research revenue and expenses have increased far more than general operating funds.* As Figure 18 and Table 22 demonstrate, sponsored research expenses increased in constant dollar terms by 89% between 1977-78 and 1990-91. Meanwhile, operating fund expenses went up less than 17% during this same period. The impact of this growth of the sponsored research enterprise is a shift of emphasis and resources within each institution toward those activities which are funded by outside agencies. There are also considerably greater pressures on core activities of the universities as the indirect, overhead costs of this additional research increase with no corresponding increase in income.

Expenditure patterns have also had to be modified in other ways to cope with underfunding. *The number of faculty and staff have not increased anywhere near as fast as the number of students and the result has been a 17% reduction in the constant dollar value of salary and wage costs per student.* As Table 23 indicates, in 1990-91, although universities were faced with a salary and wage bill in 1990-91 which was 14% higher than it was in 1977-78, this rate of increase was far lower than the increase in the demand for the services of those staff, as measured by the number of students enrolled.

Employee benefit costs have increased significantly, even adjusting for inflation, but as Table 24 and Table 25 suggest, most of that increase has been for statutory, government-controlled benefits. *The federal government's unemployment insurance and Canada pension plan and the provincial government's employer health tax and workers' compensation board payments have become major burdens on university benefit plans.* In fact, the constant dollar cost of these plans increased 122% between 1977-78 and 1991-92 and statutory benefit plans' share of university benefit costs went from 28% to 40%. Despite the major expense involved in university benefit plans, Figure 19 suggests that they lag far behind those in existence for employees of the Ontario government.

On the non-salary side of expenditures, continual cutbacks have been the order of the day at most Ontario universities. Figure 20 and Table 26 provide one example. Although universities have struggled mightily to ensure that the acquisition of books and periodicals for their libraries is not hurt beyond repair, the constant dollar value of these purchases has declined about 9% since 1977-78,

and if the increased usage from higher enrolment levels is taken into account, there has been a 32% decline in the value of those purchases.

In the area of capital spending, Figure 21 and Table 27 do offer some hope for improvement. Thanks to the provincial government's anti-recession measures, the constant dollar value of its capital grants to universities was greater in 1991-92 than in any year since the early 1970s. The picture for 1992-93 is less clear. The initial capital announcement is lower, in terms of constant dollars, than in any year since the mid-1980s. However, the Provincial Treasurer has promised a Jobs Ontario Capital Fund to continue the fight against the recession and it will provide access to additional capital funds for universities.

This improvement in capital funding will go part of the way to redressing the capital shortfall which has been accumulating in Ontario for most of the past two decades. Table 28 suggests that, *since 1977-78, universities in only one province have spent less on new buildings than have universities in Ontario. In fact, universities in some provinces have spent several times as much as universities in Ontario*. Figure 22 and Table 29 indicate that, until the late 1980s, the amount of new capital construction and major renovations was less than the depreciation on the value of the existing capital base and that a major problem of deferred maintenance was being created for universities in Ontario.

Conclusion

That Ontario continues to underfund its universities is clear from the preceding analysis. Why that should occur is not so clear. Ontario universities make an important contribution to the province's development. This fact is not obvious from the government's spending priorities.

FIGURES AND TABLES

FIGURE 1

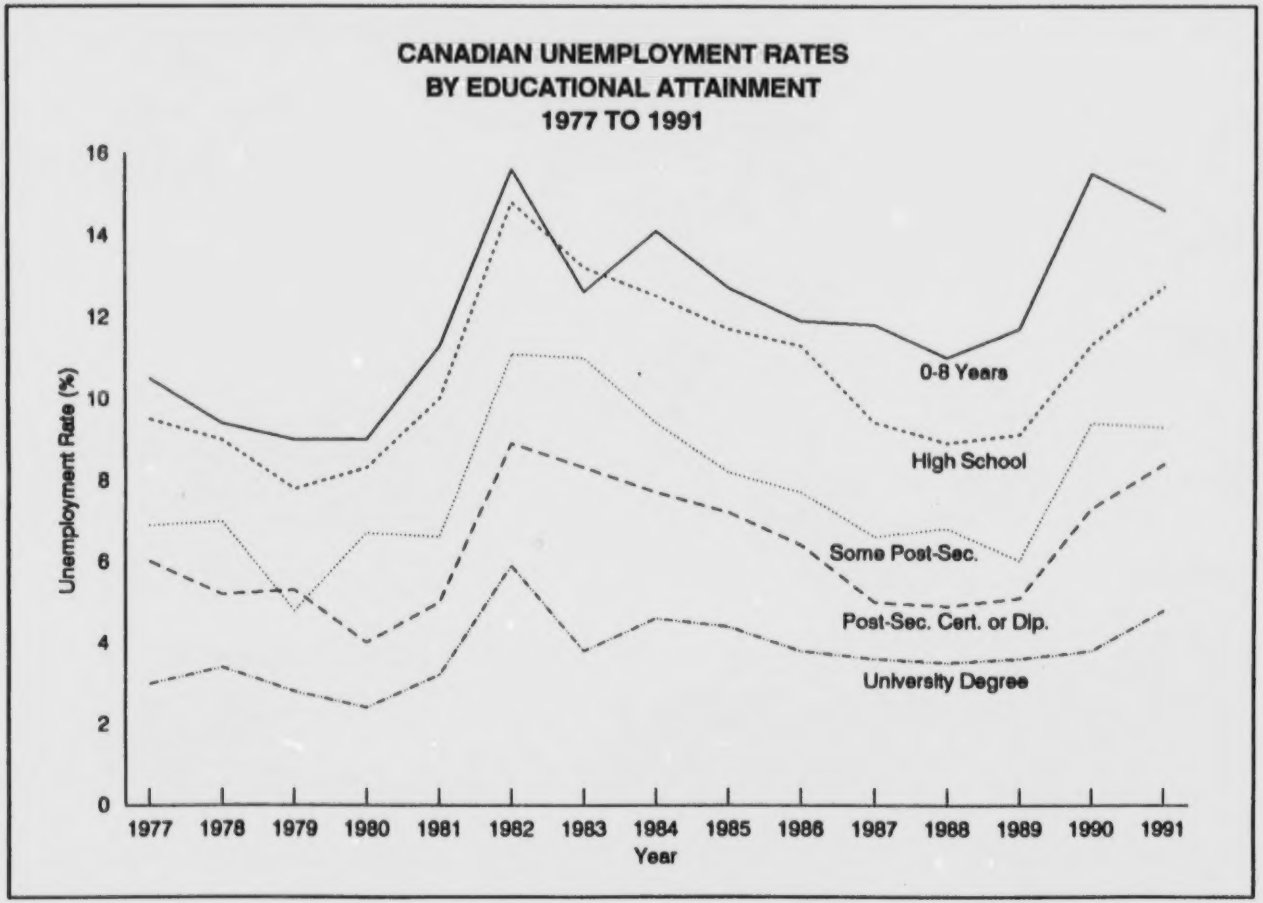
CANADIAN UNEMPLOYMENT RATES
BY EDUCATIONAL ATTAINMENT
1977 TO 1991
Unemployment Rate (%)
16
14
12
10
8
6
4
2
0
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
Year
0-8 Years
High School
Some Post-Sec.
Post-Sec. Cert. or Dip.
University Degree

FIGURE 2

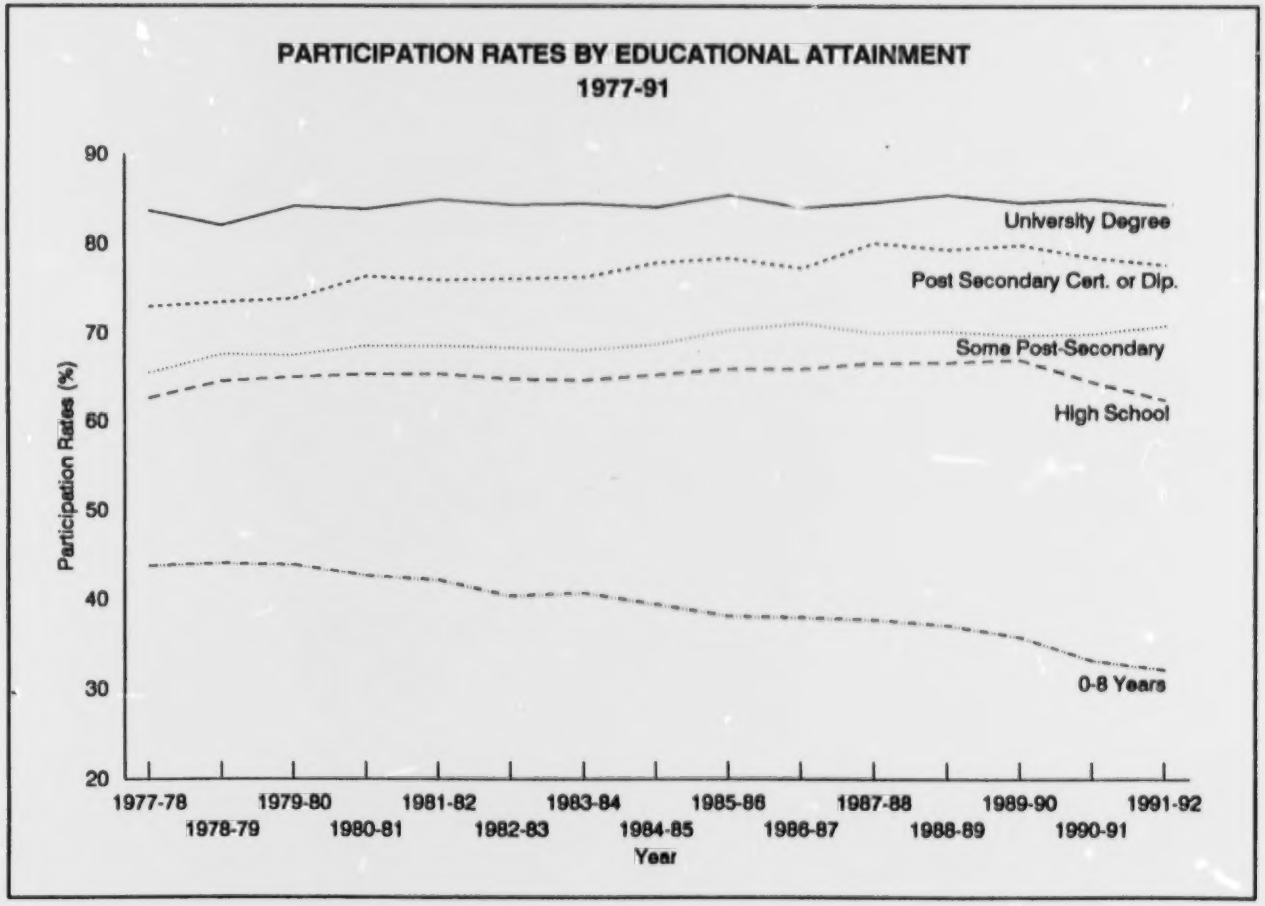
PARTICIPATION RATES BY EDUCATIONAL ATTAINMENT
1977-91
Participation Rates (%)
90
80
70
60
50
40
30
20
University Degree
Post Secondary Cert. or Dip.
Some Post-Secondary
High School
0-8 Years
1977-78
1978-79
1979-80
1980-81
1981-82
1982-83
1983-84
1984-85
1985-86
1986-87
1987-88
1988-89
1989-90
1990-91
1991-92
Year

TABLE 1

CANADIAN UNEMPLOYMENT AND PARTICIPATION RATES BY EDUCATIONAL ATTAINMENT

	Unemployment Rates* (%)															Participation Rates**
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1991
Total Canadian Labour Force	8.3	7.9	7.0	7.1	8.5	12.7	11.1	10.7	9.8	9.3	7.9	7.4	7.5	9.3	10.2	64.7
0-8 Years	10.5	9.4	9.0	9.0	11.3	15.6	12.6	14.1	12.7	11.9	11.8	11.0	11.7	15.5	14.6	32.2
High School	9.5	9.0	7.8	8.3	10.0	14.8	13.2	12.5	11.7	11.3	9.4	8.9	9.1	11.3	12.7	62.4
Some Post-Secondary	6.9	7.0	4.8	6.7	6.6	11.1	11.0	9.4	8.2	7.7	6.6	6.8	6.0	9.4	9.3	70.8
Post-Secondary Certificate or Diploma	6.0	5.2	5.3	4.0	5.0	8.9	8.3	7.7	7.2	6.4	5.0	4.9	5.1	7.3	8.4	77.7
University Degree	3.0	3.4	2.8	2.4	3.2	5.9	3.8	4.6	4.4	3.8	3.6	3.5	3.6	3.8	4.8	84.3

Source: Estimates by Educational Attainment. *The Labour Force* Monthly Report. Statistics Canada.

* As of December of each year.

** Labour Force percentage of population 15 years and over.

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FIGURE 3

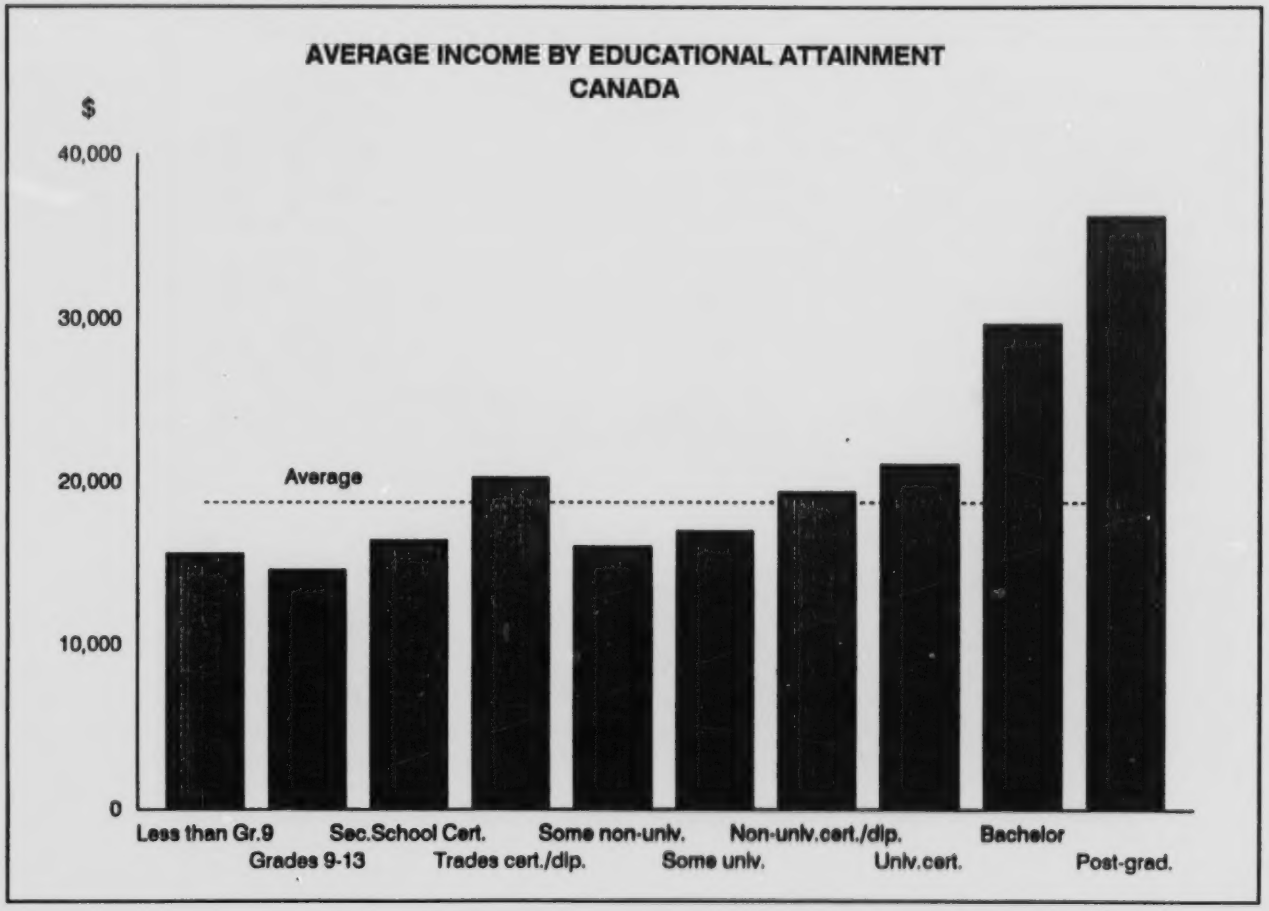
AVERAGE INCOME BY EDUCATIONAL ATTAINMENT
CANADA
$
40,000
30,000
20,000
10,000
0
Average
Less than Gr.9
Grades 9-13
Sec.School Cert.
Trades cert./dip.
Some non-univ.
Some univ.
Non-univ.cert./dip.
Univ.cert.
Bachelor
Post-grad.

TABLE 2

AVERAGE INCOME BY EDUCATIONAL ATTAINMENT, CANADA AND ONTARIO, 1985

	Canada	Ontario
Post-Graduate Degree or Certificate	$36,236	$37,388
Bachelor's Degree	29,623	30,967
University Certificate	21,028	23,791
Non-University Certificate or Diploma	19,364	20,162
Some University	16,925	17,210
Some Non-University	15,964	16,814
Trades Certificate or Diploma	20,227	22,214
Complete Secondary School Certificate	16,366	16,437
Grades 9 - 13	14,522	14,944
Less than Grade 9	15,555	17,094
Total	18,733	19,691

Source: Statistics Canada, Census Canada 1986

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FIGURE 4

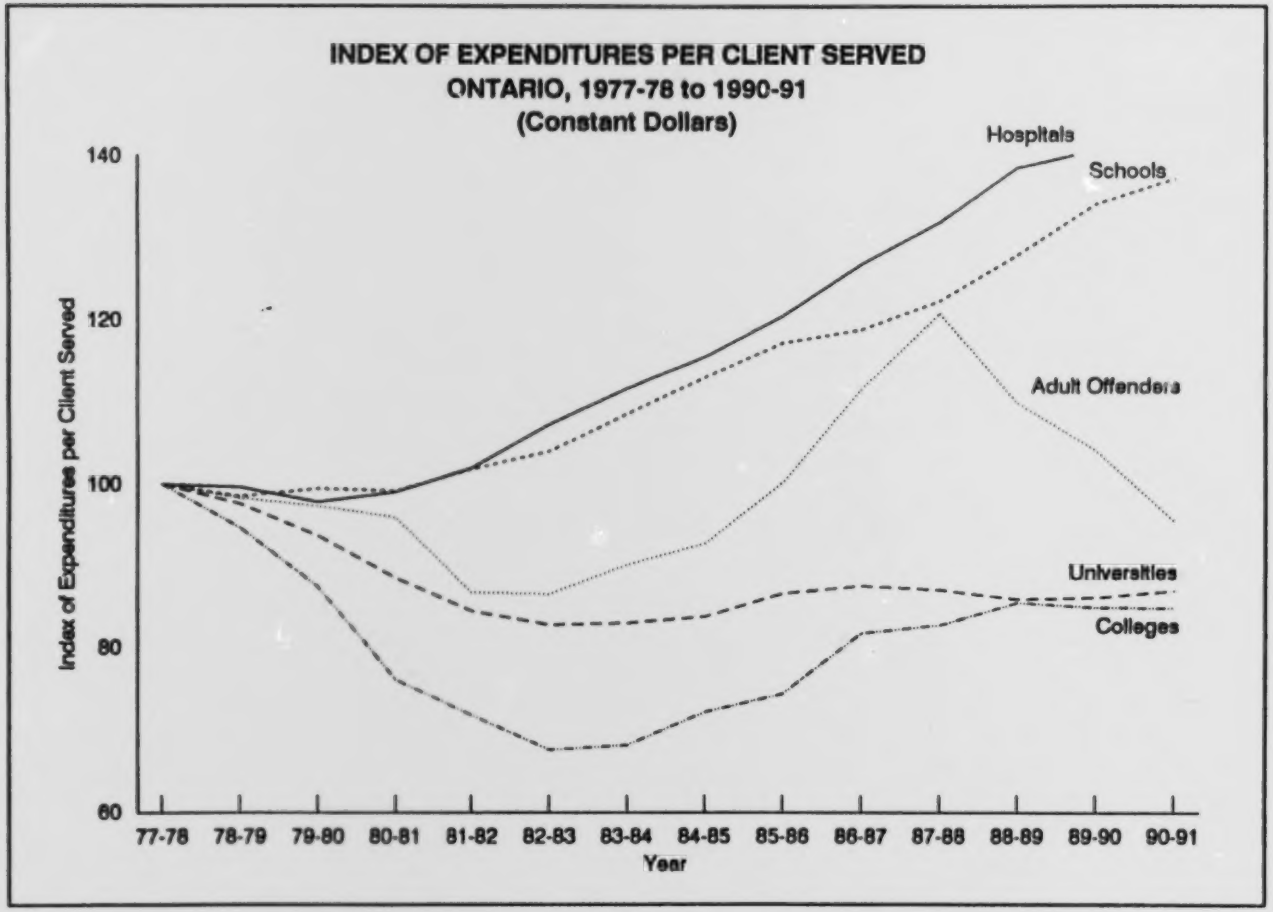
INDEX OF EXPENDITURES PER CLIENT SERVED
ONTARIO, 1977-78 to 1990-91
(Constant Dollars)
Hospitals
Schools
Adult Offenders
Universities
Colleges
Index of Expenditures per Client Served
140
120
100
80
60
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

TABLE 3

EXPENDITURES PER CLIENT SERVED, 1977-78 TO 1990-91

		1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Elementary & Secondary Education (total school costs per pupil)1	Actual	$2,083	$2,240	$2,468	$2,735	$3,149	$3,517	$3,859	$4,173	$4,505	$4,761	$5,111	$5,570	$6,156	$6,620
	Constant	4,825	4,755	4,796	4,784	4,909	5,013	5,232	5,447	5,648	5,727	5,897	6,166	6,470	6,620
	Index	100.0	98.5	99.4	99.1	101.7	103.9	108.4	112.9	117.1	118.7	122.2	127.8	134.1	137.2
Hospitals (gross operating costs per diem)2	Actual	$151.91	$165.06	$177.19	$199.15	$230.06	$264.67	$289.52	$311.06	$337.82	$370.80	$401.88	$440.42	$470.85	n/a
	Constant	351.81	350.35	344.34	348.31	358.62	377.27	392.54	406.00	423.55	446.03	463.65	487.53	494.90	0.0
	Index	100.0	99.6	97.8	99.0	101.9	107.2	111.5	115.4	120.4	126.7	131.8	138.5	140.6	0.0
CAATs (operating cost per provincially-funded FTE student)3	Actual	$3,949	$4,083	$4,113	$3,979	$42,222	$4,339	$4,602	$5,059	$5,427	$6,216	$6,555	$7,065	$7,386	$7,759
	Constant	9,148	8,666	7,993	6,959	6,581	6,185	6,239	6,603	6,804	7,477	7,562	7,821	7,763	7,759
	Index	100.0	94.7	87.4	76.1	71.9	67.6	68.2	72.2	74.4	81.7	82.7	85.5	84.9	84.8
Adult Offenders (expenditure per inmate day)4	Actual	$47.50	$50.97	$55.09	$60.32	$61.22	$66.80	$73.16	$78.17	$87.83	$101.89	$115.10	$109.10	$109.00	$105.00
	Constant	110.04	108.19	107.06	105.50	95.43	95.22	99.19	102.03	110.12	122.56	132.79	120.77	114.57	105.00
	Index	100.0	98.3	97.3	95.9	86.7	86.5	90.1	92.7	100.1	111.4	120.7	109.8	104.1	95.4
Universities (operating expense per FTE student)5	Actual	$4,723	$5,030	$5,277	$5,534	$5,929	$6,354	$6,697	$7,021	$7,557	$7,963	$8,252	$8,495	$8,967	$9,512
	Constant	10,941	10,677	10,255	9,679	9,242	9,057	9,090	9,164	9,475	9,579	9,520	9,403	9,425	9,512
	Index	100.0	97.6	93.7	88.5	84.5	82.8	83.0	83.8	86.6	87.5	87.0	85.9	86.1	86.9

Sources:
1. Ministry of Education.
2. Ministry of Health, *Hospital Statistics*, various years
3. Ministry of Colleges and Universities.
4. Ministry of Correctional Services
5. Ministry of Colleges and Universities, *MCU Financial Report*, various years; COU Special Committee on Macro-Indicators Ontario Universities Statistical Compendium, various years, and Council of Finance Officers - Universities of Ontario, *Financial Report of Ontario Universities*, various years.

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FIGURE 5

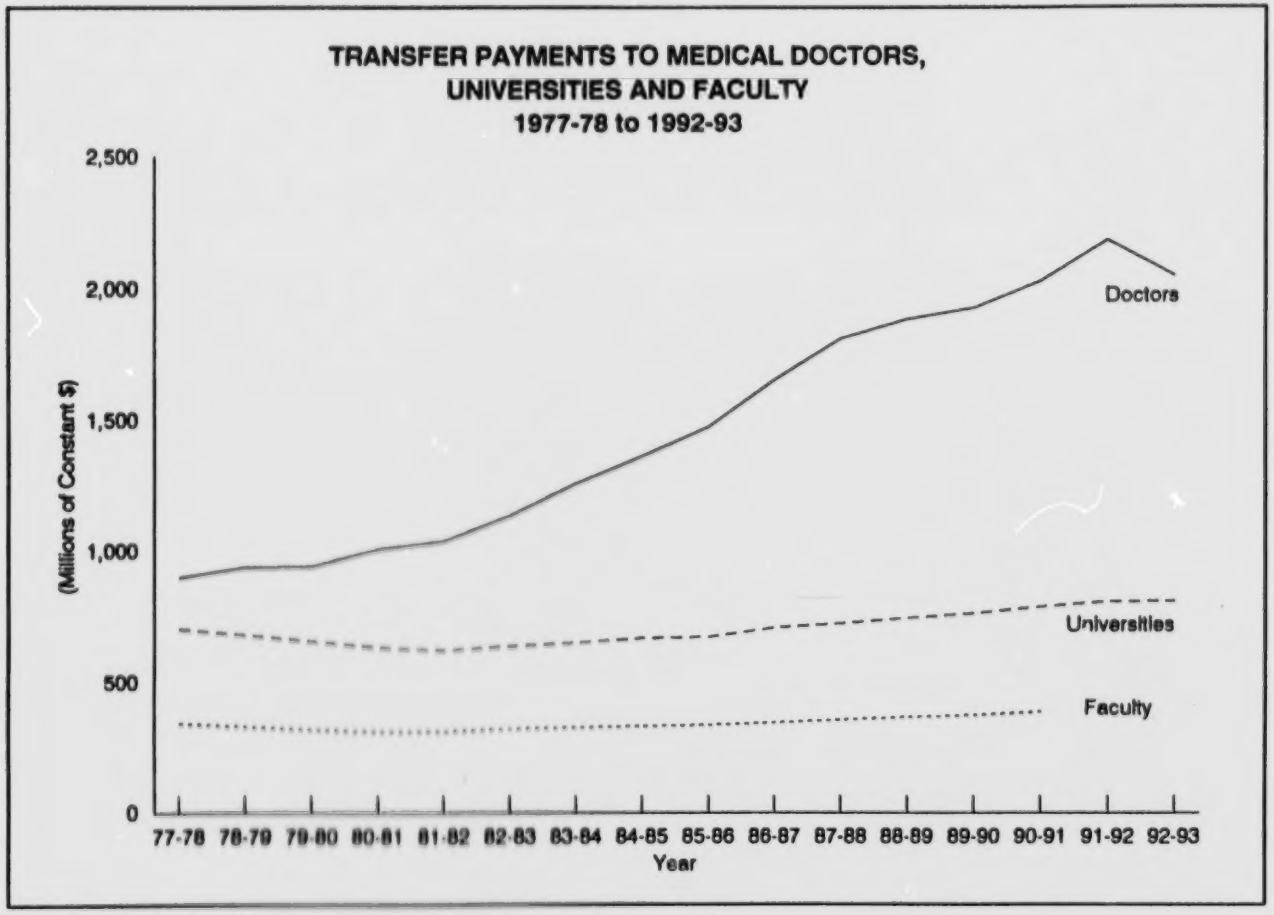
TRANSFER PAYMENTS TO MEDICAL DOCTORS,
UNIVERSITIES AND FACULTY
1977-78 to 1992-93
(Millions of Constant $)
2,500
2,000
1,500
1,000
500
0
Doctors
Universities
Faculty
77-78 78-79 79-80 80-81 81-82 82-83 83-84 84-85 85-86 86-87 87-88 88-89 89-90 90-91 91-92 92-93
Year

TABLE 4

TRANSFER PAYMENTS TO MEDICAL DOCTORS, UNIVERSITIES, AND FACULTY, 1977-78 TO 1992-93
($MILLIONS)

	OHIP Payments to Physicians and Practitioners			Salaries of University Faculty With Academic Rank			Operating Grants to Universities		
	Actual Dollars	Constant 1977-78 Dollars	Index	Actual Dollars	Constant 1977-78 Dollars	Index	Actual Dollars	Constant 1977-78 Dollars	Index
1977-78	$ 898.2	$ 898.2	100.0	$340.5	$340.5	100.0	$ 703.6	$703.6	100.0
1978-79	1,023.3	937.9	104.4	358.6	328.7	96.5	744.2	681.9	96.9
1979-80	1,122.0	941.8	104.9	378.1	317.4	93.2	781.9	656.3	93.3
1980-81	1,334.3	1,007.2	112.1	410.4	309.8	91.0	838.1	632.6	89.9
1981-82	1,543.0	1,038.1	115.6	460.1	309.5	90.9	923.5	621.3	88.3
1982-83	1,846.5	1,135.5	126.4	521.2	320.5	94.1	1,035.7	636.9	90.5
1983-84	2,149.3	1,257.6	140.0	556.7	325.7	95.7	1,112.8	651.1	92.5
1984-85	2,416.4	1,360.8	151.5	583.8	328.8	96.6	1,184.7	667.2	94.8
1985-86	2,723.7	1,473.4	164.0	617.8	334.2	98.2	1,244.8	673.4	95.7
1986-87	3,177.4	1,649.6	183.7	658.4	341.8	100.4	1,362.9	707.6	100.6
1987-88	3,628.2	1,806.0	201.1	706.9	351.9	103.3	1,451.6	722.5	102.7
1988-89	3,936.5	1,880.4	209.4	759.9	363.0	106.6	1,554.9	742.8	105.6
1989-90	4,244.0	1,925.3	214.4	819.1	371.6	109.1	1,676.9	760.9	108.1
1990-91	4,692.5	2,025.6	225.5	888.1	383.4	112.6	1,822.8	786.9	111.8
1991-92 (estimate)	5,257.3	2,182.2	242.9	...	...	...	1,945.1	807.4	114.7
1992-93 (estimate)	5,041.7	2,047.6	228.0	...	...	...	1,994.0	809.8	115.1

Source: Ontario, *Public Accounts*, various years.
Ontario, *Expenditure Estimates*, 1991-92 and 1992-93
COFO-UO, *Financial Report of Ontario Universities*, various years.

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FIGURE 6

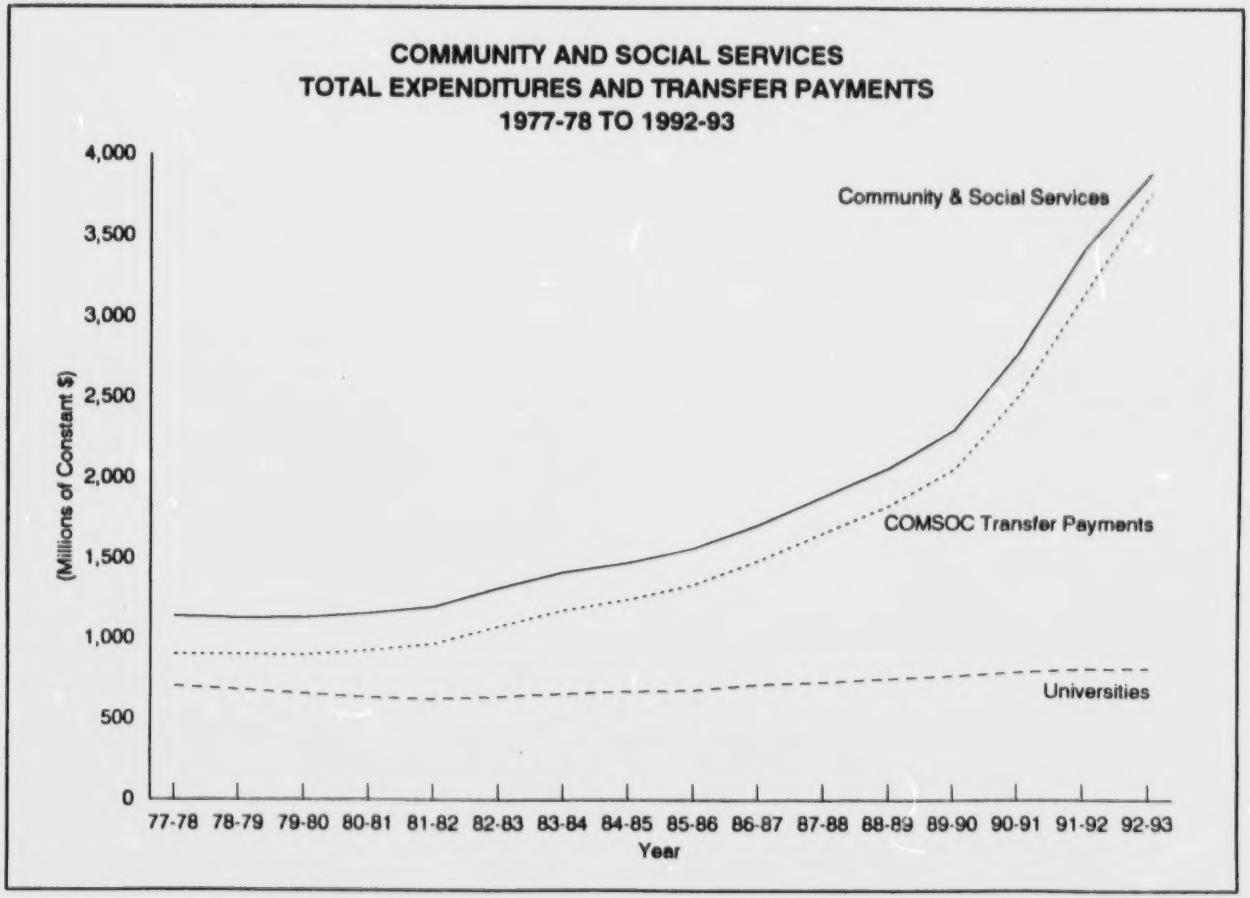
COMMUNITY AND SOCIAL SERVICES
TOTAL EXPENDITURES AND TRANSFER PAYMENTS
1977-78 TO 1992-93
(Millions of Constant $)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Community & Social Services
COMSOC Transfer Payments
Universities
77-78 78-79 79-80 80-81 81-82 82-83 83-84 84-85 85-86 86-87 87-88 88-89 89-90 90-91 91-92 92-93
Year

TABLE 5

COMMUNITY AND SOCIAL SERVICES TRANSFER PAYMENTS
AND OPERATING GRANTS TO UNIVERSITIES, 1977-78 TO 1992-93
(CONSTANT 1977-78 $ MILLIONS AND % OF PROVINCIAL BUDGETARY EXPENDITURES)

	Community and Social Services Transfer Payments			Operating Grants to Universities		
	$	Index	%	$	Index	%
1977-78	$900.8	100.0	6.86	$703.6	100.0	5.36
1978-79	899.4	99.8	6.93	681.9	96.9	5.26
1979-80	897.1	99.6	6.97	656.0	93.2	5.10
1980-81	924.7	102.7	7.27	632.8	89.9	4.98
1981-82	962.3	106.8	7.28	621.4	88.3	4.70
1982-83	1,071.4	118.9	7.74	637.3	90.6	4.60
1983-84	1,171.1	130.0	8.15	651.3	92.6	4.53
1984-85	1,237.6	137.4	8.31	667.5	94.9	4.48
1985-86	1,328.5	147.5	8.38	673.7	95.7	4.25
1986-87	1,477.0	164.0	8.83	708.2	100.6	4.24
1987-88	1,651.2	183.3	9.49	722.9	102.7	4.15
1988-89	1,823.4	202.4	9.85	743.0	105.6	4.01
1989-90	2,054.4	228.1	10.88	760.9	108.2	4.03
1990-91	2,517.2	279.5	12.55	786.9	111.8	3.92
1991-92	3,150.2	349.7	14.51	807.3	114.7	3.72
1992-93	3,766.7	418.2	16.91	809.8	115.1	3.64

Source: Ontario, *Public Accounts*, various years
Ontario, *Expenditure Estimates 1991-92 and 1992-93*
1992 Ontario Budget

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FIGURE 7

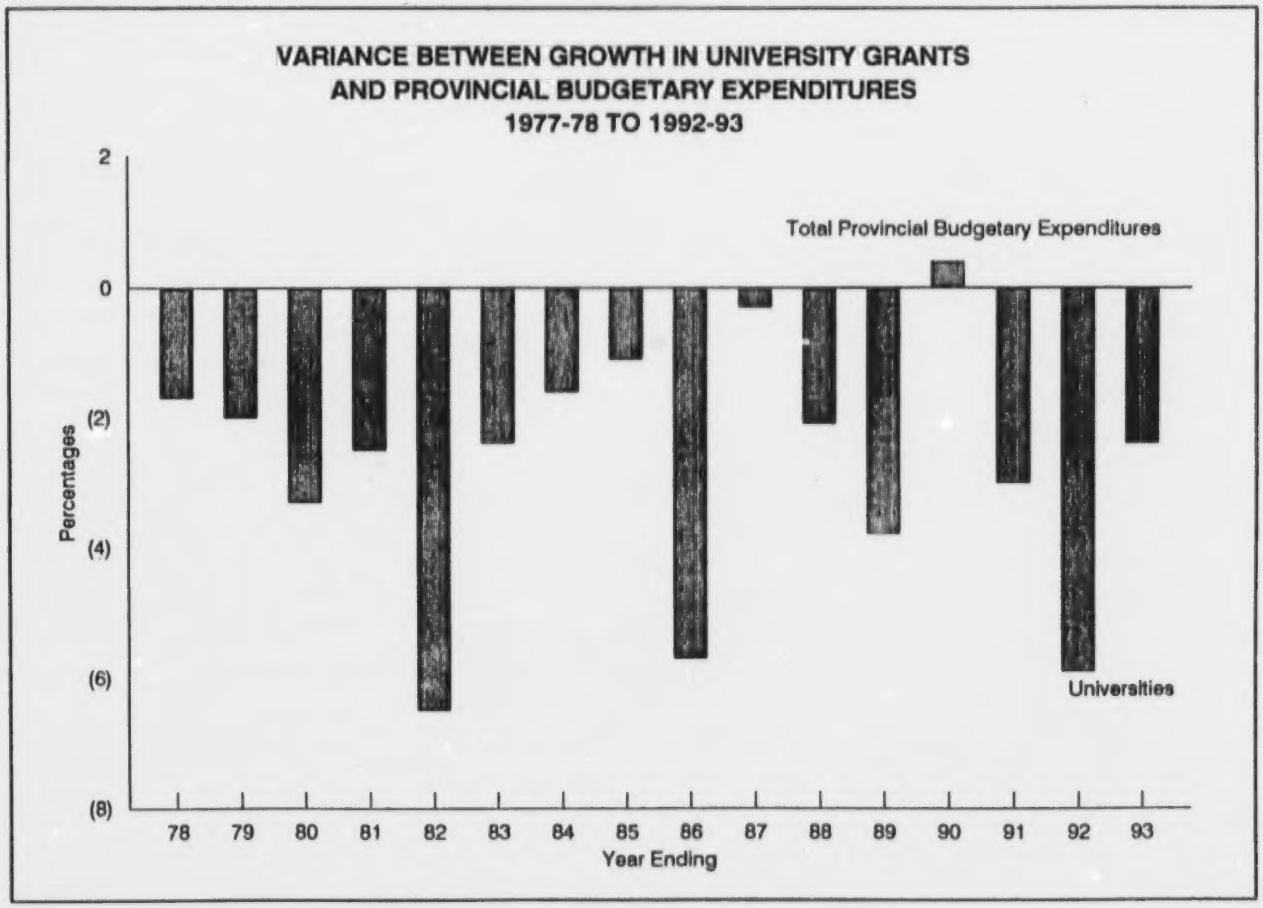
VARIANCE BETWEEN GROWTH IN UNIVERSITY GRANTS
AND PROVINCIAL BUDGETARY EXPENDITURES
1977-78 TO 1992-93
2
0
(2)
(4)
(6)
(8)
Percentages
Total Provincial Budgetary Expenditures
Universities
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
Year Ending

TABLE 6

PERCENTAGE INCREASE IN PROVINCIAL OPERATING GRANTS AND TOTAL BUDGETARY EXPENDITURES 1977-78 TO 1992-93

	Operating Grants to Ontario Universities	Total Provincial Budgetary Expenditures	Universities Difference from Provincial Annual Increase
1977-78	8.4	10.1	(1.7)
1978-79	5.8	7.8	(2.0)
1979-80	5.1	8.4	(3.3)
1980-81	7.2	9.7	(2.5)
1981-82	10.2	16.7	(6.5)
1982-83	12.1	14.5	(2.4)
1983-84	7.5	9.1	(1.6)
1984-85	6.5	7.6	(1.1)
1985-86	5.1	10.8	(5.7)
1986-87	9.5	9.8	(0.3)
1987-88	6.5	8.6	(2.1)
1988-89	7.1	10.9	(3.8)
1989-90	7.8	7.4	0.4
1990-91	8.7	11.7	(3.0)
1991-92(e)	6.7	12.6	(5.9)
1992-93(e)	2.5	4.9	(2.4)
Average	7.3	10.0	(2.7)

Source: Province of Ontario, *Public Accounts*, various years.
Province of Ontario, *Expenditure Estimates, 1991-92 and 1992-93*
Province of Ontario, *1992 Ontario Budget*

Note: Estimates of total provincial budgetary expenditure increases have been consistently understated. This has resulted in consistently underestimating the differences between increases in grants to universities, which normally do not change during the fiscal year, and increases in total provincial budgetary expenditures.

FIGURE 8

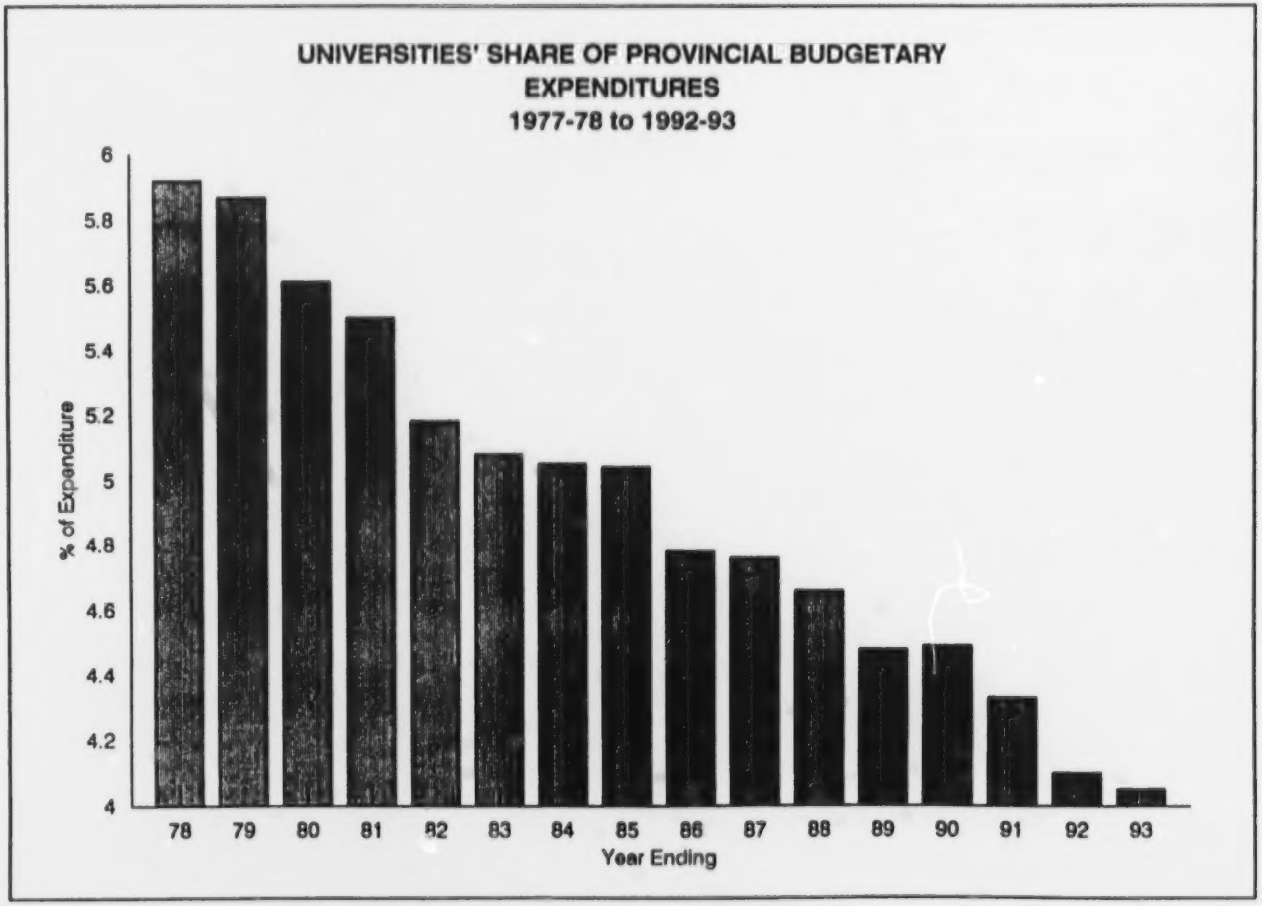
UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES
1977-78 to 1992-93
% of Expenditure
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
4.2
4
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
Year Ending

TABLE 7

ONTARIO UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES (EXCLUDING PUBLIC DEBT INTEREST PAYMENTS)

	Universities' Share	Universities' Annual Shortfall from 1977-78 Level of Government Support		Universities' Annual Shortfall from 1990-91 Level of Government Support	
	%	%	$ millions	%	$ millions
1977-78	5.92	-	-	-	-
1978-79	5.87	0.86	6.5	-	-
1979-80	5.61	5.22	43.1	-	-
1980-81	5.50	7.09	64.0	-	-
1981-82	5.18	12.44	131.2	-	-
1982-83	5.08	14.22	171.7	-	-
1983-84	5.05	14.62	190.5	-	-
1984-85	5.04	14.86	206.8	-	-
1985-86	4.78	19.26	296.9	-	-
1986-87	4.76	19.60	332.2	-	-
1987-88	4.66	21.32	393.4	-	-
1988-89	4.48	24.30	499.1	-	-
1989-90	4.49	24.08	531.9	-	-
1990-91	4.33	26.93	671.7	-	-
1991-92 (estimate)	4.10	30.79	865.2	5.28	108.5
1992-93 (estimate)	4.05	31.52	917.7	6.28	133.6

Source: Ontario, *Public Accounts*, various years.
1991-92 and 1992-93 Expenditure Estimates
1992 Ontario Budget

* Estimates of total provincial budgetary expenditures have been consistently understated. This has resulted in consistently overestimating the universities' share of provincial budgetary expenditures.

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FIGURE 9

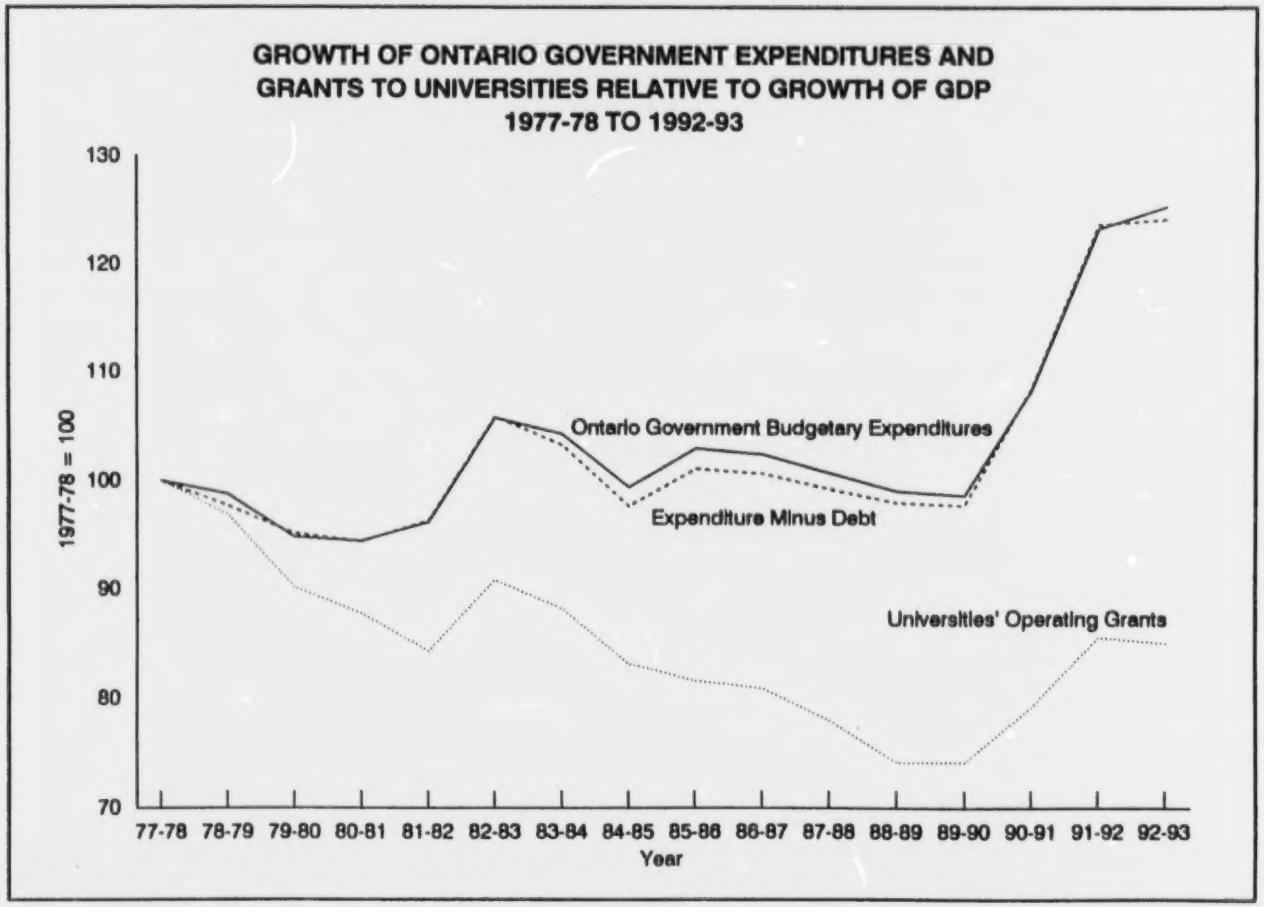
GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND
GRANTS TO UNIVERSITIES RELATIVE TO GROWTH OF GDP
1977-78 TO 1992-93
130
120
110
100
90
80
70
1977-78 = 100
Ontario Government Budgetary Expenditures
Expenditure Minus Debt
Universities' Operating Grants
77-78 78-79 79-80 80-81 81-82 82-83 83-84 84-85 85-86 86-87 87-88 88-89 89-90 90-91 91-92 92-93
Year

FIGURE 10

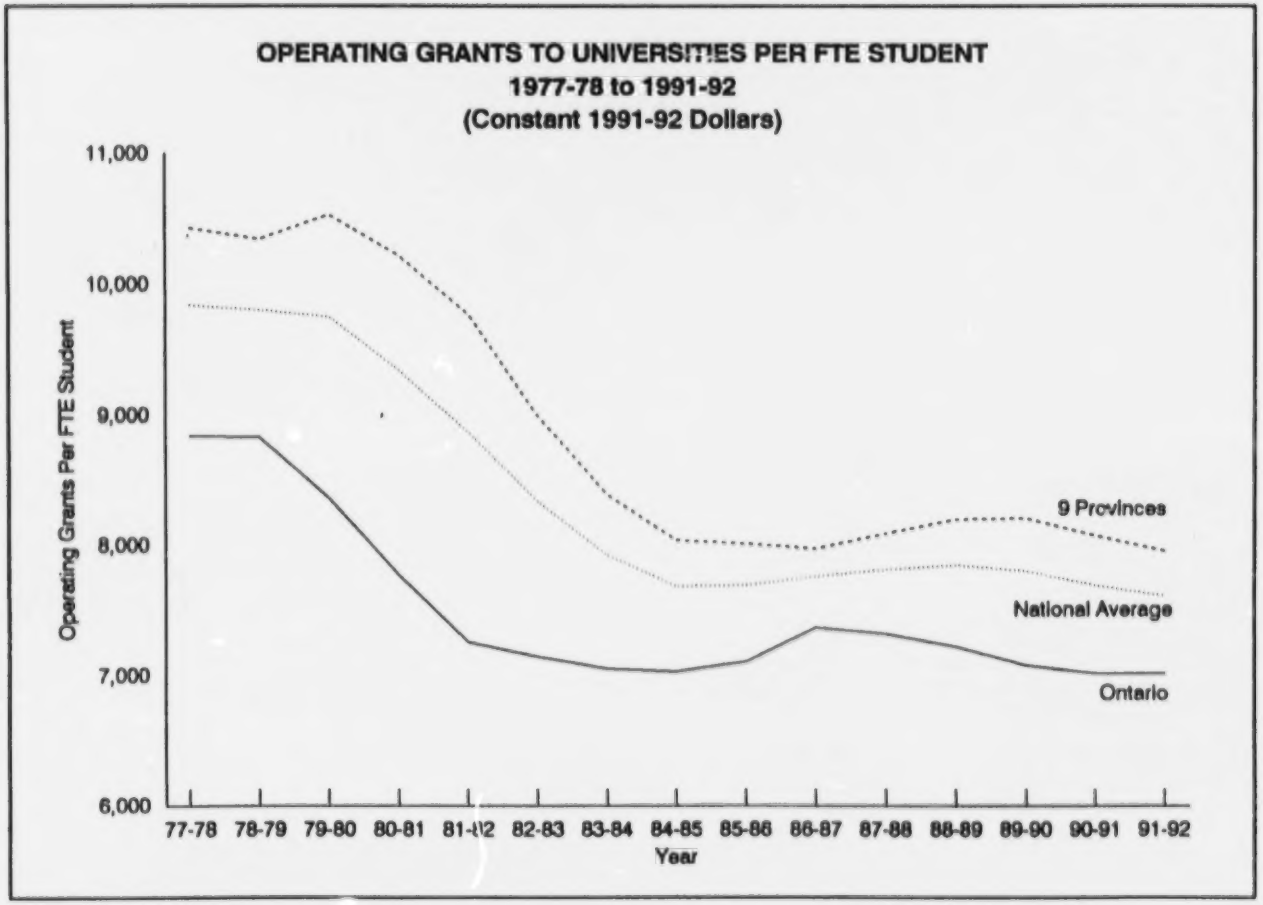
OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT
1977-78 to 1991-92
(Constant 1991-92 Dollars)
Operating Grants Per FTE Student
11,000
10,000
9,000
8,000
7,000
6,000
9 Provinces
National Average
Ontario
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
91-92
Year

TABLE 8

GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND GRANTS TO UNIVERSITIES RELATIVE TO THE GROWTH OF GDP 1977-78 TO 1992-93

	GDP Index Values	Government Expenditures Index	Government Minus Debt Interest Index	Universities' Grants Index	Growth of Government vs. GDP	Government Minus Debt Interest vs. GDP	Growth of Universities' Grants vs. GDP
1977-78	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978-79	109.2	107.8	106.7	105.8	98.8	97.7	96.9
1979-80	123.3	116.9	117.3	111.1	94.8	95.1	90.2
1980-81	135.8	128.2	128.2	119.1	94.4	94.4	87.7
1981-82	155.7	149.7	149.9	131.3	96.1	96.3	84.3
1982-83	162.2	171.4	171.6	147.2	105.7	105.8	90.8
1983-84	179.5	187.0	185.2	158.2	104.2	103.2	88.1
1984-85	202.6	201.3	197.8	168.4	99.4	97.6	83.1
1985-86	216.8	223.1	219.1	176.9	102.9	101.1	81.6
1986-87	239.4	245.1	240.9	193.7	102.4	100.6	80.9
1987-88	264.4	266.1	262.2	206.3	100.7	99.2	78.0
1988-89	298.1	295.0	291.9	221.0	99.0	97.9	74.1
1989-90	321.5	316.9	313.9	238.3	98.6	97.7	74.1
1990-91	327.3	353.8	354.5	259.1	108.1	108.3	79.2
1991-92	323.2	398.3	399.4	276.4	123.2	123.6	85.5
1992-93	334.3	417.7	413.8	283.4	125.3	124.1	85.0

Note: The first four columns of information measure the growth of the economy (as measured by the Gross Domestic Product), the growth of provincial government expenditures, the growth of those same expenditures but excluding public debt interest payments, and the growth of operating grants to universities. The last three columns compare the rates of growth of government expenditures (including and excluding debt payments) and grants to universities with the rate of growth of the economy. That is, an index value of 100.0 indicates an identical growth rate to that of the GDP, a lesser value indicates a lower rate of growth, and a value greater than 100.0 indicates a growth rate greater than the growth rate of the GDP.

Sources: *Public Accounts of Ontario*, various years
1992 Ontario Budget

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TABLE 9

INTERPROVINCIAL COMPARISONS OF OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT 1977-78 TO 1991-92

	1977 -78	1978 -79	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88	1988 -89	1989 -90	1990 -91e	1991 -92e
British Columbia	$4,410	$4,903	$5,204	$5,528	$6,217	$6,193	$5,873	$5,810	$5,784	$5,988	$6,384	$6,439	$7,076	$7,203	$7,278
	(4)	(3)	(4)	(4)	(2)	(3)	(4)	(4)	(7)	(8)	(8)	(8)	(7)	(6)	(6)
Alberta	4,797	5,340	5,815	6,284	6,812	7,328	7,182	7,114	7,264	7,389	7,158	7,364	7,493	7,557	7,652
	(1)	(2)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(2)	(3)	(4)	(5)	(5)
Saskatchewan	4,108	4,618	5,098	5,304	5,619	6,149	6,235	6,361	6,686	6,623	6,748	7,011	7,215	7,203	7,206
	(5)	(5)	(5)	(5)	(5)	(4)	(3)	(3)	(3)	(3)	(6)	(6)	(6)	(7)	(7)
Manitoba	3,874	4,124	4,771	4,499	5,062	5,362	5,582	5,704	6,073	6,336	6,804	7,150	7,483	7,736	7,858
	(7)	(7)	(6)	(7)	(7)	(7)	(6)	(5)	(4)	(5)	(4)	(5)	(5)	(4)	(3)
Quebec	4,449	4,657	5,399	5,935	6,176	5,915	5,713	5,613	5,936	6,193	6,797	7,340	7,827	8,298	8,704
	(3)	(4)	(3)	(2)	(3)	(5)	(5)	(6)	(5)	(6)	(5)	(4)	(3)	(2)	(1)
New Brunswick	3,905	4,364	4,755	4,915	5,185	5,426	5,274	5,561	5,779	6,090	6,428	6,664	6,908	7,095	7,149
	(6)	(6)	(7)	(6)	(6)	(6)	(8)	(8)	(8)	(7)	(7)	(7)	(8)	(8)	(8)
Nova Scotia	3,476	3,802	4,042	4,340	4,996	5,141	5,158	5,389	5,537	5,820	5,971	6,276	6,305	6,346	6,283
	(9)	(9)	(10)	(9)	(8)	(9)	(9)	(9)	(9)	(10)	(10)	(9)	(10)	(10)	(10)
Prince Edward Island	3,030	3,544	4,246	4,430	4,909	5,312	5,377	5,569	5,855	6,609	6,907	7,771	8,083	8,186	7,852
	(10)	(10)	(8)	(8)	(9)	(8)	(7)	(7)	(6)	(4)	(3)	(2)	(2)	(3)	(4)
Newfoundland	4,625	5,485	5,994	5,684	5,847	6,912	7,788	6,994	6,761	6,999	7,460	8,233	8,668	8,578	8,094
	(2)	(1)	(1)	(3)	(4)	(2)	(1)	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(2)
9 Provinces	4,329	4,686	5,209	5,618	6,024	6,072	5,950	5,923	6,144	6,372	6,742	7,119	7,503	7,761	7,951
Ontario	3,669	4,002	4,140	4,273	4,475	4,621	5,000	5,180	5,450	5,885	6,097	6,271	6,474	6,746	7,014
(Rank)	(8)	(8)	(9)	(10)	(10)	(10)	(10)	(10)	(10)	(9)	(9)	(10)	(9)	(9)	(9)
Canada	4,086	4,443	4,826	5,138	5,471	5,628	5,619	5,662	5,901	6,201	6,514	6,816	7,133	7,394	7,611

e = estimate

Source: Tripartite Committee on Interprovincial Comparisons, April 1992, for actual data. Statistics Canada and COU Research Division for estimates.

TABLE 10

PROVINCIAL OPERATING GRANTS FOR UNIVERSITIES
PER $1,000 OF PROVINCIAL PERSONAL INCOME

	1977 -78	1978 -79	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88	1988 -89	1989 -90	1990 -91e	Rank 1990-91
British Columbia	$10.23	$10.10	$9.50	$8.92	$8.70	$8.53	$8.18	$7.45	$6.79	$6.68	$6.85	$6.77	$7.04	$6.92	(10)
Alberta	13.83	12.68	11.57	10.50	9.80	10.50	10.96	11.14	10.31	10.43	9.98	9.54	9.52	9.12	(8)
Saskatchewan	12.49	12.03	11.59	11.18	9.88	10.10	10.53	10.43	10.19	9.62	9.55	9.59	9.54	9.47	(7)
Manitoba	13.18	11.87	12.17	11.19	10.50	11.14	11.74	10.79	10.63	10.44	10.29	10.07	10.08	9.93	(6)
Quebec	13.35	13.66	13.90	14.34	13.67	12.59	12.14	11.14	11.28	11.23	11.54	11.76	11.99	12.00	(3)
New Brunswick	14.06	13.93	13.64	13.31	12.75	12.70	12.36	11.92	11.79	11.59	11.70	11.43	11.44	11.47	(5)
Nova Scotia	15.71	15.12	14.27	14.58	14.35	13.94	13.77	13.35	12.57	12.31	12.19	12.23	12.10	11.87	(4)
Prince Edward Island	12.14	11.27	11.68	11.43	10.59	11.17	11.03	10.53	10.96	11.23	12.01	11.84	12.12	12.48	(2)
Newfoundland	14.70	14.57	14.40	14.20	14.05	13.75	13.32	12.91	12.71	13.19	13.01	13.39	13.49	13.53	(1)
9 Provinces	12.91	12.69	12.44	12.22	11.57	11.26	11.14	10.53	10.26	10.20	10.27	10.26	10.37	10.26	-
Ontario	9.83	9.35	8.75	8.39	7.92	8.09	7.95	7.65	7.56	7.63	7.41	7.14	7.02	7.05	
(Rank)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(9)	(9)	(9)	(9)	(9)	(10)	(9)	(9)
Canada	11.70	11.39	11.01	10.76	10.20	10.06	9.91	9.39	9.20	9.17	9.11	8.97	8.97	8.92	-

e = estimate

Source: Tripartite Committee on Interprovincial Comparisons, April 1992, for actual data. Statistics Canada and COU Research Division for estimates.

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TABLE 11

INTERPROVINCIAL COMPARISONS OF UNIVERSITY FINANCING
1989-90

	Indicators	Ontario	Rank	Average Of Rest Of Canada	Addidtional Funding Required to Equal Rest of Canada	
					Total Required ($ millions)	Total Per Student ($)
1)	Provincial Operating Grants Per Student	$6,474	(9)	$7,503	$254.3	$1,029
2)	Provincial Operating Grants Per Capita	$165	(8)	$198	$315	$1,274
3)	Provincial Operating Grants Plus Student Aid Per Capita	$175	(8)	$211	$352.1	$1,425
4)	Provincial Operating Grants Plus Fees Per Student	$8,216	(9)	$8,549	$82.2	$333
5)	Total Operating Income Per Student	$8,706	(9)	$9,343	$157.3	$637
6)	Provincial Operating Grants Plus Student Aid as a Percentage of Gross General Expenditures	3.77%	(5)	3.98%	$91	$369
7)	Provincial Operating Grants Per $1,000 Of Provincial Personal Income	$7.02	(10)	$10.37	$764.1	$3,093
8)	Total University Operating Expenditures as a Percentage of Provincial Gross Domestic Product	0.78%	(10)	1.09%	$1,164.6	$4,714

Source: Tripartite Committee on Interprovincial Comparisons, April 1992.

FIGURE 11

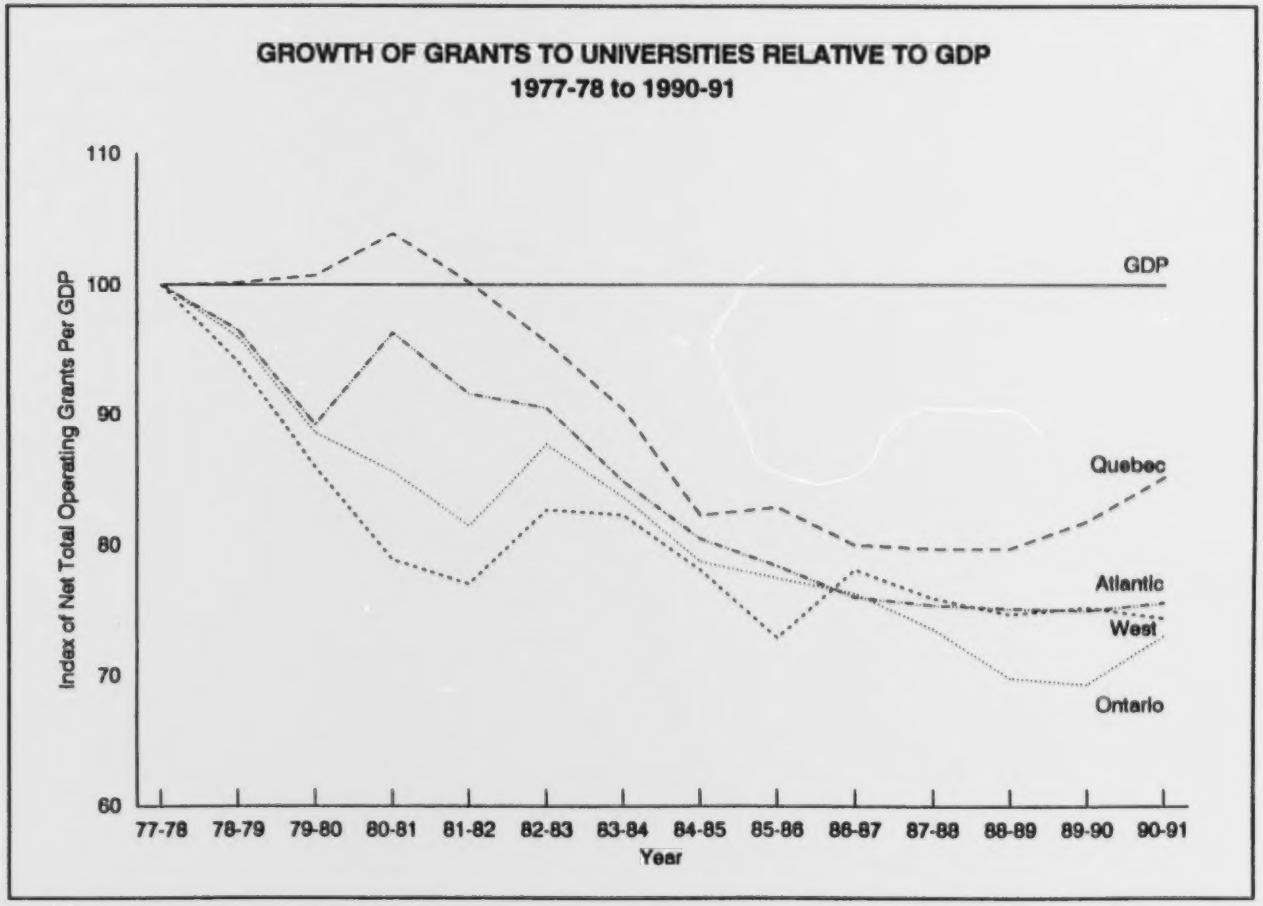
GROWTH OF GRANTS TO UNIVERSITIES RELATIVE TO GDP
1977-78 to 1990-91
Index of Net Total Operating Grants Per GDP
110
100
90
80
70
60
GDP
Quebec
Atlantic
West
Ontario
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

TABLE 12

GDP ELASTICITY BY PROVINCE, 1977-78 TO 1990-91
(GROWTH RATES OF PROVINCIAL OPERATING GRANTS
TO UNIVERSITIES AS A RATIO OF GDP GROWTH)

	1977-78 to 1981-82	1981-82 to 1985-86	1985-86 to 1990-91	1977-78 to 1990-91	Rank
British Columbia	0.700	-0.081	1.099	0.598	(10)
Alberta	0.476	1.249	2.075	0.762	(5)
Saskatchewan	0.567	1.366	1.072	0.792	(2)
Manitoba	0.510	1.148	0.752	0.685	(6)
Quebec	1.174	0.316	1.012	0.776	(3)
New Brunswick	0.832	0.664	1.116	0.763	(4)
Nova Scotia	0.869	0.525	0.951	0.679	(7)
Prince Edward Island	0.664	1.353	0.631	0.652	(9)
Newfoundland	0.836	0.704	1.916	1.314	(1)
9 - Provinces	0.785	0.573	1.170	0.785	-
Ontario	0.522	0.909	0.869	0.672	(8)
Canada	0.720	0.675	1.017	0.737	-

Note: In this table, "elasticity" refers to the growth of operating grants to universities relative to the growth of the economy. The table demonstrates that as the economy, stated in terms of Gross Domestic Product, expands or contracts, then operating grants to universities will expand or contract at a ratio greater or lesser than 1.00. That is, if provincial grants to universities are increasing at a faster rate than the GDP, this table will reflect elasticities greater than 1.00. If grants are increasing at a slower rate than the GDP, elasticities will be less than 1.00. If grants to universities actually decline, elasticities will usually equal a negative value.

Sources: Statistics Canada
Tripartite Committee on Interprovincial Comparisons.

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TABLE 13

INTERPROVINCIAL COMPARISONS OF TOTAL OPERATING EXPENSES PER CLIENT

	HOSPITALS		SCHOOLS		UNIVERSITIES	
	Total Operating Expenses Per Patient Day 1988-89		School Board Expenditures Per Student 1988		Total Operating Expenditures Per Student 1988-89	
British Columbia	322.02	(7)	4,761	(5)	8,319	(9)
Alberta	384.84	(5)	4,954	(4)	9,459	(3)
Saskatchewan	316.32	(8)	4,605	(7)	9,128	(4)
Manitoba	464.77	(1)	5,228	(3)	8,950	(5)
Ontario	436.82	(4)	5,649	(2)	7,892	(10)
Quebec	310.77	(9)	6,125	(1)	8,844	(6)
New Brunswick	358.10	(6)	4,678	(6)	8,486	(8)
Nova Scotia	453.61	(3)	4,303	(8)	8,630	(7)
P.E.I.	306.80	(10)	3,866	(10)	10,666	(1)
Newfoundland	454.17	(2)	3,877	(9)	9,504	(2)

Source: Statistics Canada, *Hospital Statistics - Preliminary*
Statistics Canada, *Financial Statistics of Education*
Tripartite Committee on Interprovincial Comparisons, *Interprovincial Comparisons of University Financing*.

FIGURE 12

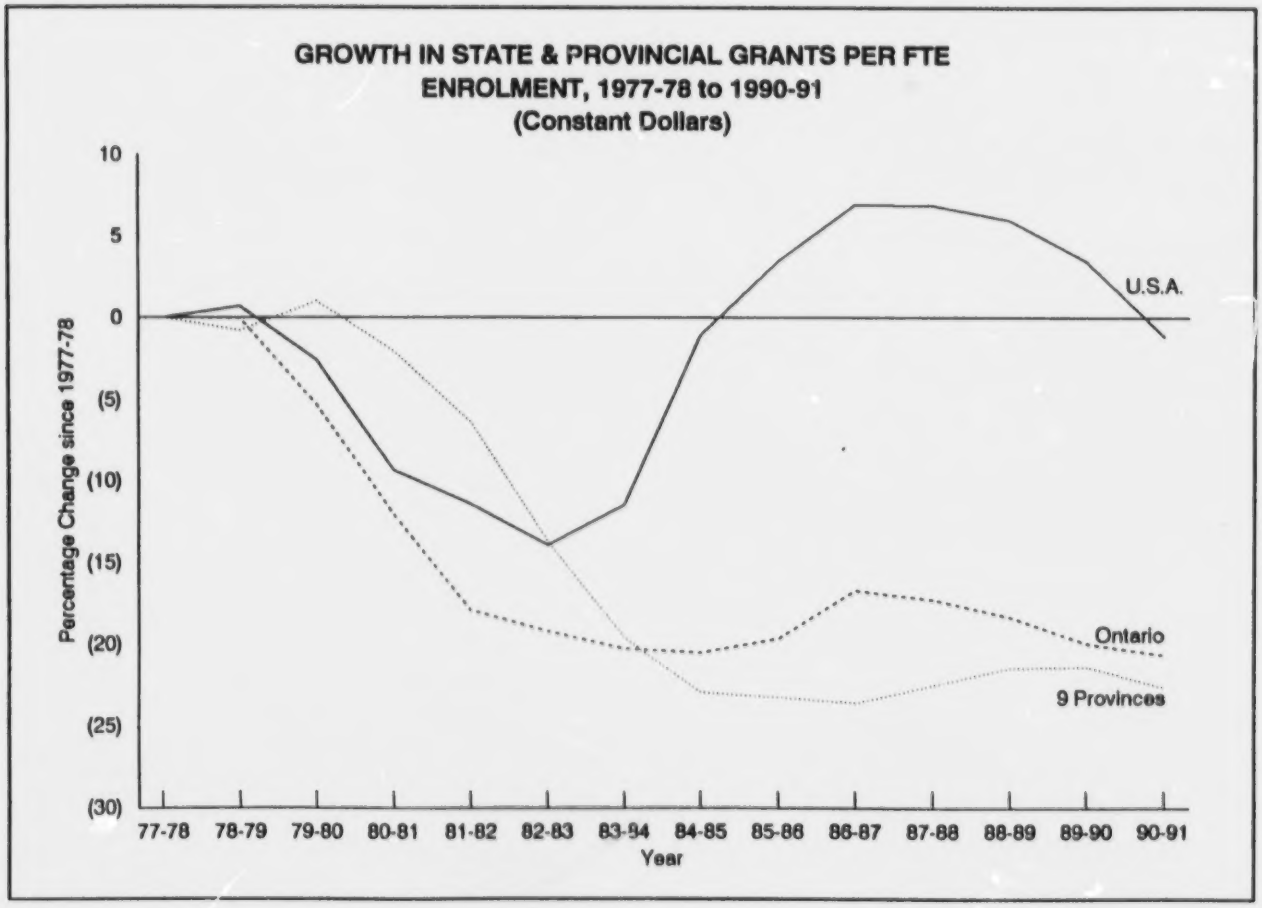
GROWTH IN STATE & PROVINCIAL GRANTS PER FTE ENROLMENT, 1977-78 to 1990-91
(Constant Dollars)
Percentage Change since 1977-78
10
5
0
(5)
(10)
(15)
(20)
(25)
(30)
U.S.A.
Ontario
9 Provinces
77-78
78-79
79-80
80-81
81-82
82-83
83-94
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

FIGURE 13

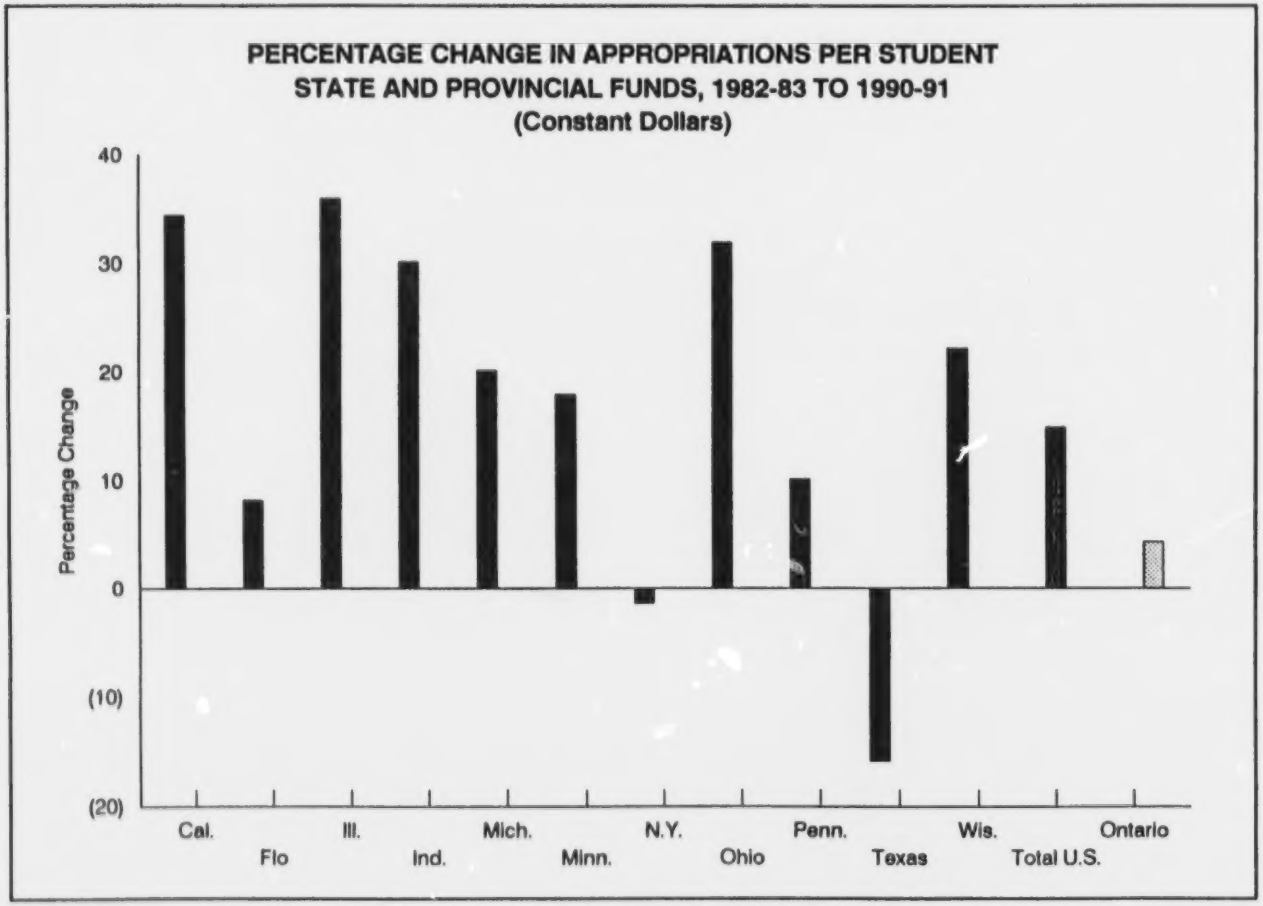
PERCENTAGE CHANGE IN APPROPRIATIONS PER STUDENT
STATE AND PROVINCIAL FUNDS, 1982-83 TO 1990-91
(Constant Dollars)
Percentage Change
40
30
20
10
0
(10)
(20)
Cal.
Flo
Ill.
Ind.
Mich.
Minn.
N.Y.
Ohio
Penn.
Texas
Wis.
Total U.S.
Ontario

FIGURE 14

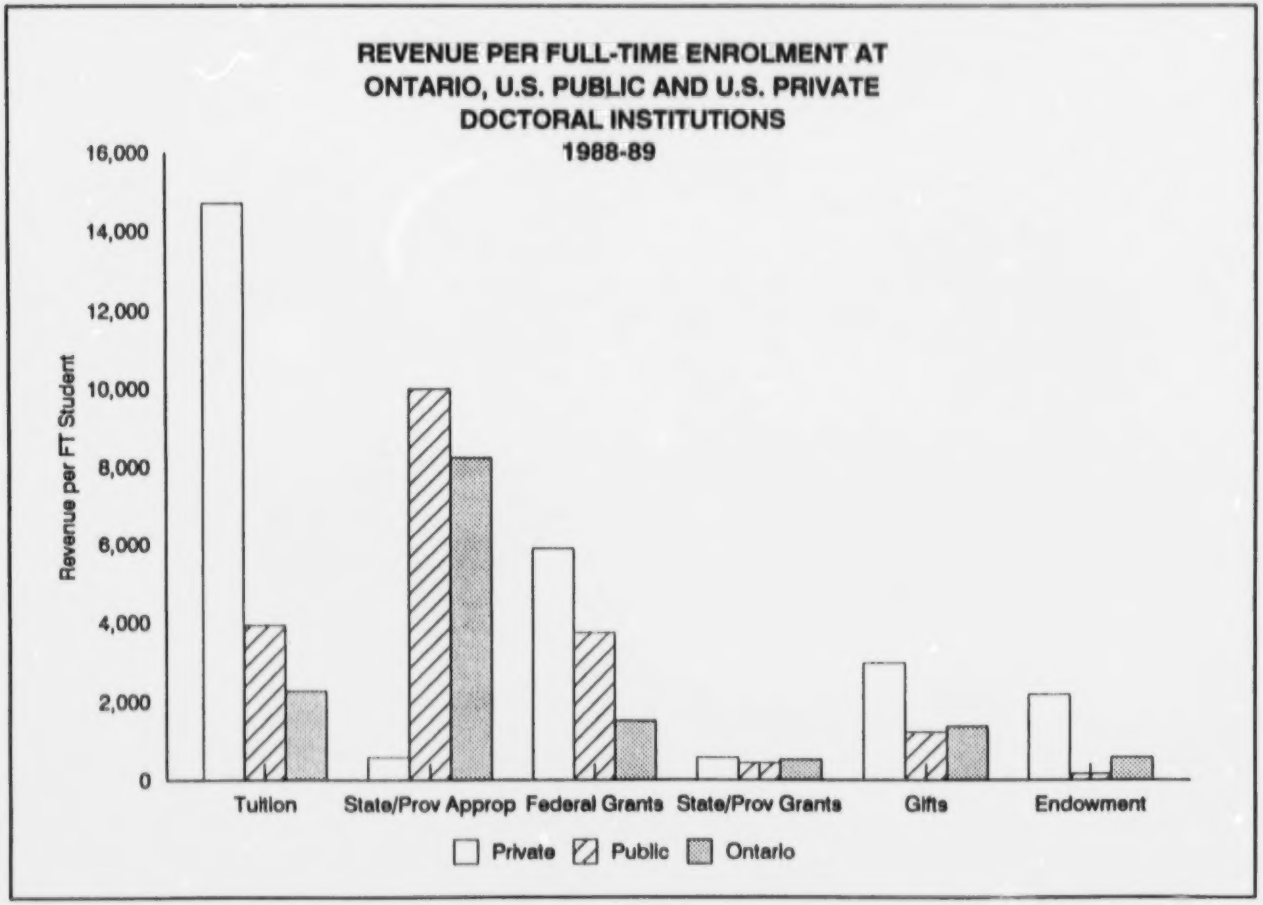
REVENUE PER FULL-TIME ENROLMENT AT
ONTARIO, U.S. PUBLIC AND U.S. PRIVATE
DOCTORAL INSTITUTIONS
1988-89
Revenue per FT Student
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Tuition
State/Prov Approp
Federal Grants
State/Prov Grants
Gifts
Endowment
Private
Public
Ontario

TABLE 14

REVENUE PER FULL-TIME ENROLMENT AT RESEARCH DOCTORAL LEVEL UNIVERSITIES IN ONTARIO AND ELEVEN MAJOR STATES, 1988-89 ($PPP CDN)

Institution	Tuition and Fees	State Government Appropriations	Federal Government Grants and Contracts	State Government Grants and Contracts	Private Gifts, Grants and Contracts	Endowment Income	TOTAL
PUBLIC							
California	3,226	15,314	7,331	489	0	0	26,360
Florida	2,509	13,826	3,185	1,307	2,237	1	23,065
Illinois	3,381	8,117	3,003	509	1,077	34	16,120
Indiana	3,957	7,196	2,068	227	766	83	14,297
Michigan	5,933	9,454	4,547	262	2,107	284	22,587
Minnesota	4,474	14,611	7,021	471	4,368	367	31,310
New York	2,742	14,854	2,865	806	999	91	22,358
Ohio	4,669	6,599	1,874	302	982	184	14,611
Pennsylvania	8,863	8,055	4,653	388	2,178	415	24,552
Texas	2,555	7,821	2,076	299	1,069	249	14,070
Wisconsin	4,130	9,134	5,407	93	1,880	150	20,794
TOTAL	**3,938**	**9,990**	**3,747**	**434**	**1,224**	**145**	**19,478**
PRIVATE							
California	15,493	0	10,639	172	4,459	3,097	33,859
Florida	13,216	684	4,910	1,690	2,255	481	23,236
Illinois	18,484	162	8,273	391	4,719	3,396	35,425
Indiana	12,882	0	3,223	144	3,453	2,038	21,740
Michigan	10,155	0	938	695	4,642	162	16,592
New York	15,632	696	5,216	536	2,097	1,427	25,605
Ohio	14,283	1,648	14,958	906	6,814	5,346	43,956
Pennsylvania	15,560	1,258	7,852	647	4,104	1,659	31,081
Texas	9,014	0	1,534	203	1,590	5,133	17,473
Wisconsin	10,900	0	1,044	88	541	400	12,974
TOTAL	**14,702**	**577**	**5,880**	**562**	**2,970**	**2,169**	**26,861**
TOTAL INSTITUTIONS							
California	4,237	14,052	7,604	463	367	255	26,978
Florida	5,185	10,542	3,616	1,403	2,242	121	23,108
Illinois	6,721	6,357	4,169	483	1,882	777	20,390
Indiana	4,861	6,467	2,185	218	1,038	282	15,051
Michigan	6,027	9,244	4,468	272	2,163	281	22,455
Minnesota	4,744	14,611	7,021	471	4,368	367	31,310
New York	10,798	6,006	4,334	638	1,685	926	24,387
Ohio	4,996	6,431	2,319	322	1,180	360	15,608
Pennsylvania	12,360	4,505	6,324	523	3,184	1,065	27,962
Texas	3,546	6,622	1,993	284	1,149	998	14,592
Wisconsin	5,089	7,839	4,789	92	1,691	186	19,686
TOTAL	**6,103**	**8,097**	**4,176**	**459**	**1,575**	**552**	**20,963**
ONTARIO							
Carleton	2,071	5,986	1,026	50	540	178	9,851
Guelph	1,981	9,150	1,887	2,896	1,125	465	17,505
McMaster	2,033	8,315	2,336	1,477	3,987	957	19,105
Ottawa	2,020	9,311	1,553	604	1,223	275	14,985
Queen's	1,892	8,601	2,233	388	1,714	855	15,682
Toronto	2,578	9,551	1,907	264	1,773	1,147	17,220
Waterloo	2,322	8,627	1,645	225	1,551	317	14,687
Western	2,102	7,419	1,292	125	1,031	488	12,457
Windsor	2,226	6,787	460	192	205	141	10,011
York	2,619	7,056	607	166	408	151	11,006
TOTAL	**2,259**	**8,224**	**1,510**	**513**	**1,363**	**572**	**14,443**

Source: National Data Service for Higher Education
Council of Finance Officers - Universities of Ontario, *Financial Report of Ontario Universities 1988-89*.

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FIGURE 15

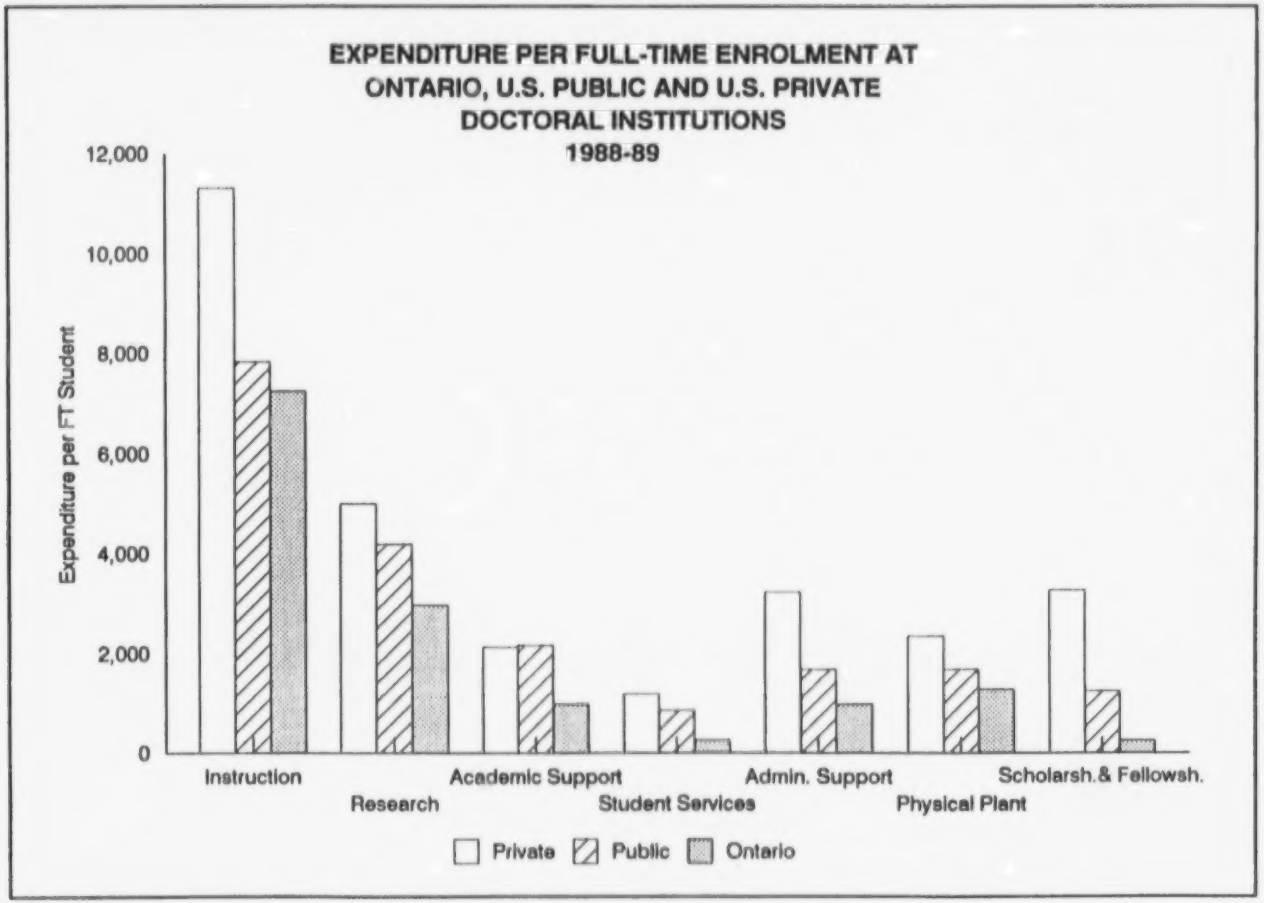
EXPENDITURE PER FULL-TIME ENROLMENT AT
ONTARIO, U.S. PUBLIC AND U.S. PRIVATE
DOCTORAL INSTITUTIONS
1988-89
Expenditure per FT Student
12,000
10,000
8,000
6,000
4,000
2,000
0
Instruction
Research
Academic Support
Student Services
Admin. Support
Physical Plant
Scholarsh.& Fellowsh.
Private
Public
Ontario

TABLE 15

EXPENDITURES PER FULL-TIME ENROLMENT AT RESEARCH DOCTORAL LEVEL
UNIVERSITIES IN ONTARIO AND ELEVEN MAJOR STATES, 1988-89
($PPP CDN)

State	Instruction	Research	Academic Support	Student Services	Administrative Support	Physical Plant	Scholarships & Fellowships	TOTAL
PUBLIC INSTITUTIONS								
California	11,312	7,908	4,207	1,586	2,242	2,026	1,557	30,837
Florida	7,366	5,538	2,248	838	3,133	1,606	728	21,458
Illinois	6,073	3,103	2,001	641	1,061	1,659	1,272	15,810
Indiana	5,863	1,813	1,443	468	1,594	1,568	1,086	13,835
Michigan	8,597	4,637	2,060	1,014	1,524	1,717	1,623	21,162
Minnesota	12,193	7,971	3,507	1,269	1,979	2,636	1,382	30,936
New York	9,011	2,947	1,754	691	2,432	2,341	1,366	20,542
Ohio	7,080	1,744	1,533	685	1,076	1,129	1,005	14,251
Pennsylvania	9,679	4,389	2,699	988	2,317	2,211	1,851	24,134
Texas	5,939	2,999	1,107	363	1,419	1,531	1,052	14,409
Wisconsin	6,268	6,584	1,899	1,179	1,058	1,508	1,210	19,705
TOTAL PUBLIC	7,845	4,190	2,165	854	1,678	1,684	1,250	19,666
PRIVATE INSTITUTIONS								
California	11,010	6,492	1,956	1,783	5,795	2,434	3,795	33,265
Florida	9,919	3,878	1,696	1,061	1,875	1,316	2,468	22,212
Illinois	18,986	7,036	2,225	1,296	3,861	3,044	4,902	41,350
Indiana	8,178	2,366	1,505	1,073	2,739	1,643	3,442	20,917
Michigan	6,358	179	2,497	1,338	2,629	1,020	3,323	17,345
New York	11,099	4,452	1,840	1,238	3,506	2,609	3,011	27,756
Ohio	13,481	13,760	4,737	1,117	3,219	3,145	4,043	43,501
Pennsylvania	11,535	7,700	3,055	1,107	3,227	2,666	3,500	32,791
Texas	7,131	1,424	1,627	978	2,093	1,515	2,528	17,296
Wisconsin	5,959	327	2,176	924	1,727	1,148	1,774	14,035
TOTAL PRIVATE	11,323	5,006	2,133	1,190	3,233	2,344	3,266	28,496
TOTAL INSTITUTIONS								
California	11,287	7,791	4,022	1,602	2,535	2,060	1,741	31,037
Florida	8,004	5,123	2,110	894	2,819	1,534	1,163	21,647
Illinois	8,928	3,973	2,051	786	1,680	1,966	2,075	21,458
Indiana	6,097	1,869	1,449	527	1,710	1,576	1,324	14,552
Michigan	8,547	4,538	2,060	1,021	1,549	1,701	1,661	21,078
Minnesota	12,193	7,971	3,507	1,269	1,979	2,636	1,382	30,936
New York	10,316	3,887	1,808	1,033	3,103	2,509	2,394	25,050
Ohio	7,297	2,153	1,642	700	1,149	1,197	1,108	15,245
Pennsylvania	10,648	6,118	2,885	1,050	2,792	2,449	2,712	28,655
Texas	6,122	2,757	1,186	457	1,522	1,529	1,278	14,852
Wisconsin	6,224	5,697	1,938	1,143	1,153	1,457	1,290	18,902
TOTAL PUBLIC & PRIVATE	8,545	4,354	2,159	922	1,991	1,817	1,655	21,442
ONTARIO								
Carleton	5,397	1,316	833	151	798	1,005	130	9,630
Guelph	7,602	5,220	928	394	1,228	1,407	132	16,912
McMaster	8,162	6,655	1,066	209	1,126	1,374	246	18,836
Ottawa	7,813	2,719	990	218	1,109	1,479	307	14,634
Queen's	7,755	3,888	1,122	376	1,037	1,236	611	16,024
Toronto	8,250	3,549	1,164	217	886	1,475	368	15,908
Waterloo	7,103	3,261	964	420	1,093	1,535	188	14,564
Western	6,789	2,327	833	206	815	928	248	12,146
Windsor	5,745	677	924	326	774	1,214	119	9,780
York	6,545	813	803	236	1,115	1,137	98	10,747
TOTAL ONTARIO	7,251	2,969	976	259	981	1,283	258	13,977

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TABLE 16

REVENUE PER FULL-TIME ENROLMENT AT THE UNIVERSITY OF TORONTO AND COMPARATOR INSTITUTIONS IN THE UNITED STATES, 1988-89

Institution	Tuition and Fees Per FT Student	State Government Appropriations Per FT Student	Federal Government Grants Per FT Student	State Government Grants and Contracts Per FT Student	Private Gifts, Grants and Contracts Per FT Student	Endowment Income Per FT Student	Total Per FT Student
University of Toronto	2,578	9,551	1,907	264	1,773	1,147	17,220
PUBLIC							
U California @ Los Angeles	2,837	12,102	5,660	270	2,248	0	23,117
U Illinois @ Urbana-Champaign	2,728	7,236	3,591	541	1,657	57	15,811
U Washington	3,851	8,733	9,163	334	1,849	190	24,121
U Wisconsin @ Madison	3,640	8,257	4,854	100	2,090	171	19,113
U Minnesota @ Minneapolis	3,550	11,596	4,637	374	3,466	291	23,915
Ohio State U - Main Campus	3,580	7,247	1,871	384	1,975	251	15,309
U Michigan @ Ann Arbor	6,954	7,259	6,465	134	2,662	523	23,997
U Florida	1,683	12,877	3,121	1,127	2,999	1	21,808
U.S. Institutions Average	3,607	9,291	4,754	393	2,338	186	20,568

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TABLE 17

REVENUE PER FULL TIME ENROLMENT AT QUEEN'S UNIVERSITY
AND COMPARATOR INSTITUTIONS IN THE UNITED STATES, 1988-89

Institution	Tuition and Fees Per FT Student	State Government Appropriations Per FT Student	Federal Government Grants Per FT Student	State Government Grants and Contracts Per FT Student	Private Gifts, Grants and Contracts Per FT Student	Endowment Income Per FT Student	Total Per FT Student
Queen's University	1,892	8,601	2,233	388	1,714	855	15,682
PUBLIC							
U California @ Davis	2,241	13,764	3,453	856	1,250	0	21,564
U California @ Irvine	2,532	10,287	3,790	278	1,329	0	18,217
U Connecticut	3,922	9,318	1,536	454	665	38	15,933
U New Hampshire	5,342	3,579	2,410	197	730	155	12,414
U Rhode Island	3,925	6,454	2,870	298	412	0	13,959
U Utah	2,414	7,621	4,343	235	1,731	408	16,750
Washington State U	2,710	8,415	1,643	612	1,142	81	14,603
U Virginia - Main Campus	4,455	7,612	4,004	262	2,257	1,118	19,708
Colorado State U	3,747	4,477	3,062	361	428	0	12,076
U Maine @ Orono	2,818	7 629	1,339	321	606	88	12,800
U.S. Institutions Average	3,315	8,324	2,963	419	1,119	200	16,340
PRIVATE							
U Miami	13,569	1,085	7,317	2,149	3,042	737	27,899
Northwestern U	18,389	0	6,665	383	6,351	3,019	32,107
Princeton U	13,016	0	8,384	564	7,494	13,255	42,713
Yale U	12,093	0	15,299	879	6,021	6,871	41,162
Georgetown U	14,291	0	7,700	289	2,847	700	25,827
U.S. Institutions Average	14,384	249	9,140	902	4,383	4,243	33,301

FIGURE 16

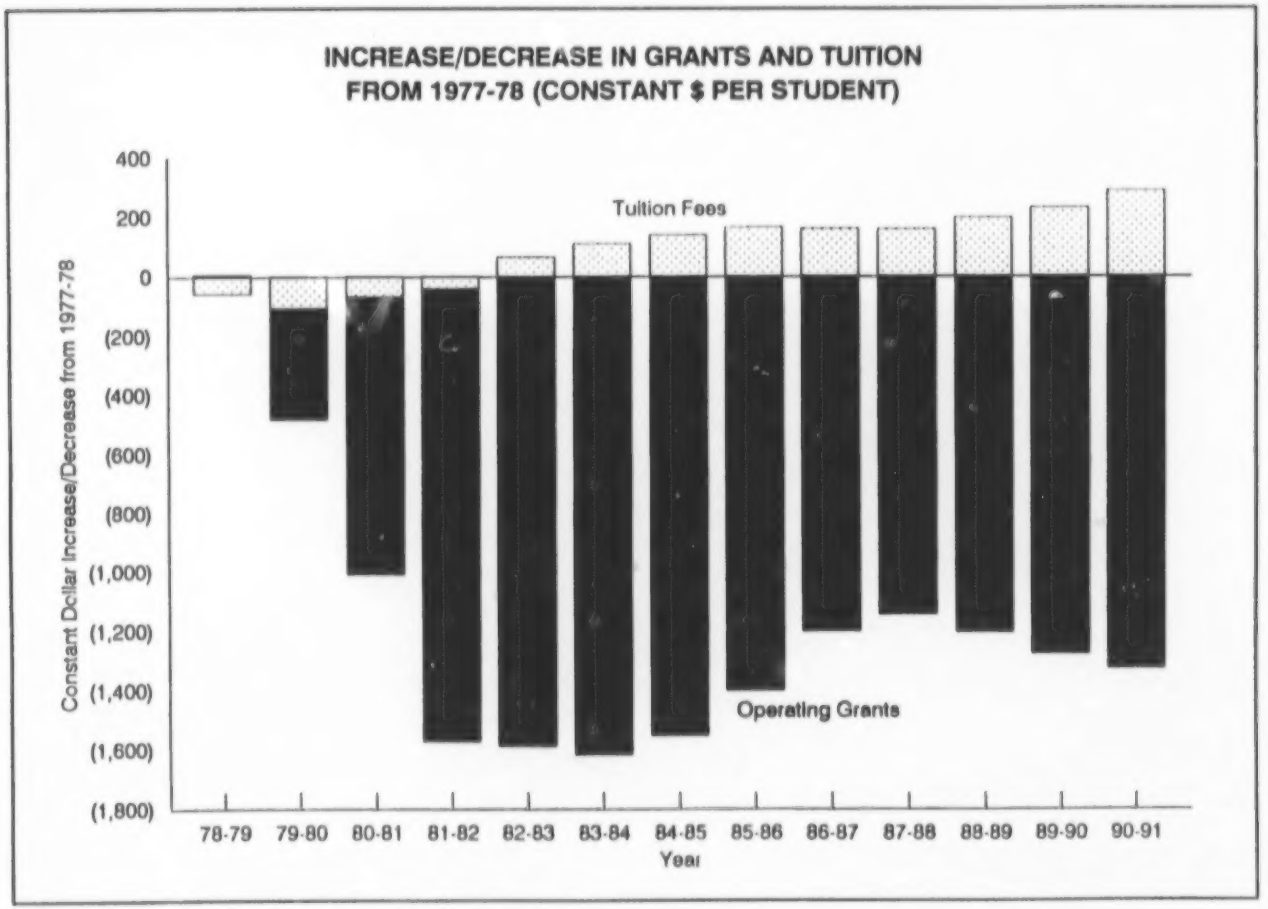
INCREASE/DECREASE IN GRANTS AND TUITION
FROM 1977-78 (CONSTANT $ PER STUDENT)
Constant Dollar Increase/Decrease from 1977-78
400
200
0
(200)
(400)
(600)
(800)
(1,000)
(1,200)
(1,400)
(1,600)
(1,800)
Tuition Fees
Operating Grants
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

FIGURE 17

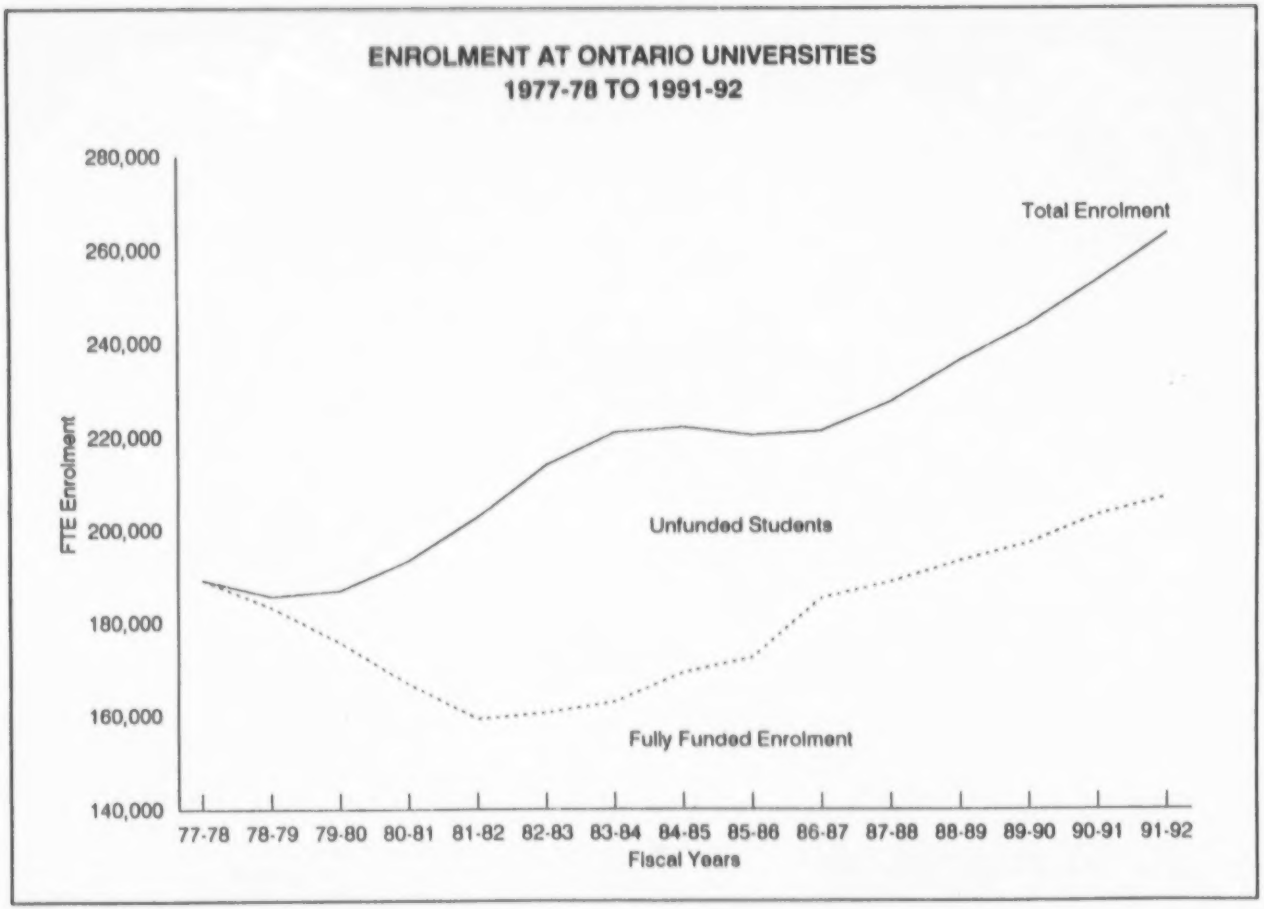
ENROLMENT AT ONTARIO UNIVERSITIES
1977-78 TO 1991-92
280,000
260,000
240,000
220,000
200,000
180,000
160,000
140,000
FTE Enrolment
Total Enrolment
Unfunded Students
Fully Funded Enrolment
77-78 78-79 79-80 80-81 81-82 82-83 83-84 84-85 85-86 86-87 87-88 88-89 89-90 90-91 91-92
Fiscal Years

TABLE 18

FUNDED AND UNFUNDED ENROLMENT AT ONTARIO UNIVERSITIES
1977-78 TO 1991-92

	FTE Enrolment	Unfunded Students
1977-78	189,046.7	0.0
1978-79	185,529.1	2,346.9
1979-80	186,777.5	11,170.1
1980-81	193,229.4	26,384.8
1981-82	202,670.8	43,336.6
1982-83	213,907.4	53,314.5
1983-84	220,821.3	57,832.1
1984-85	221,914.5	52,671.0
1985-86	220,201.1	47,668.5
1986-87	221,020.4	35,886.0
1987-88	227,240.8	38,608.0
1988-89	235,895.7	42,847.6
1989-90	243,733.9	46,860.9
1990-91	253,384.5	50,298.6
1991-92	263,446.8	56,506.4

TABLE 19

GIFTS, DONATIONS, CONTRACTS AND GRANTS FROM THE PRIVATE SECTOR
ONTARIO UNIVERSITIES AND COLLEGES
1983-84 TO 1990-91
($000)

	INCOME $ ACTUAL	INDEX $ ACTUAL	INCOME $ CONSTANT 1990-91	INDEX $ CONSTANT 1990-91
1983-84	138,542	100.0	187,837	100.0
1984-85	186,164	134.4	242,986	129.4
1985-86	179,887	129.8	225,536	120.1
1986-87	184,961	133.5	222,641	118.5
1987-88	210,079	151.6	242,368	129.0
1988-89	234,328	169.1	259,401	138.1
1989-90	263,346	190.1	276,965	147.5
1990-91	296,645	214.1	296,645	157.9

Source: COFO-UO, *Financial Report of Ontario Universities*, various years.

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TABLE 20

PERCENTAGE OF UNIVERSITIES' TOTAL INCOME EXCLUDING ANCILLARY ENTERPRISES, 1990-91

	Provincial Government Grants		Total Fees		Federal Government Grants		Other Operating Income		Total Income
	%	Rank	%	Rank	%	Rank	%	Rank	%
British Columbia	61.2	(8)	13.8	(4)	13.3	(2)	11.7	(7)	100.0
Alberta	67.8	(4)	10.7	(9)	9.5	(7)	12.1	(4)	100.0
Saskatchewan	67.4	(5)	11.9	(7)	9.0	(8)	11.7	(6)	100.0
Manitoba	64.2	(6)	13.4	(5)	9.9	(5)	12.5	(2)	100.0
Quebec	69.9	(3)	8.1	(10)	10.4	(4)	11.6	(8)	100.0
New Brunswick	63.2	(7)	17.4	(1)	7.3	(9)	12.1	(3)	100.0
Prince Edward Island	76.0	(1)	12.9	(6)	2.8	(10)	8.3	(9)	100.0
Nova Scotia	56.2	(10)	17.1	(2)	14.7	(1)	11.9	(5)	100.0
Newfoundland	70.3	(2)	11.2	(8)	10.8	(3)	7.8	(10)	100.0
9 Provinces	66.6	.	11.1	.	10.7	.	11.6	.	100.0
Ontario	60.2	(9)	16.3	(3)	9.5	(6)	14.0	(1)	100.0
Canada	64.1	.	13.1	.	10.3	.	12.5	.	100.0

Source: Canadian Association of University Business Officers, *Financial Statistics of Universities and Colleges 1990-91*.

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TABLE 21

UNIVERSITY AND COLLEGE ACCUMULATED OPERATING DEFICITS, 1990-91

Institution	$000
Carleton University	4,185
University of Guelph	1,746
Algoma University College	358
Ontario College of Art	1,403
Queen's University	4,004
Ryerson Polytechnical Institute	9,406
University of Toronto	17,508
- St. Michael's College	3,758
Trent University	707
University of Waterloo	4,033
- Renison College	432
- St. Paul's College	146
University of Western Ontario	7,817
- King's College and St. Peter's Seminary	135
Wilfrid Laurier University	776
York University	2,674

Source: COFO-UO *Financial Report of Ontario Universities 1990-91*

FIGURE 18

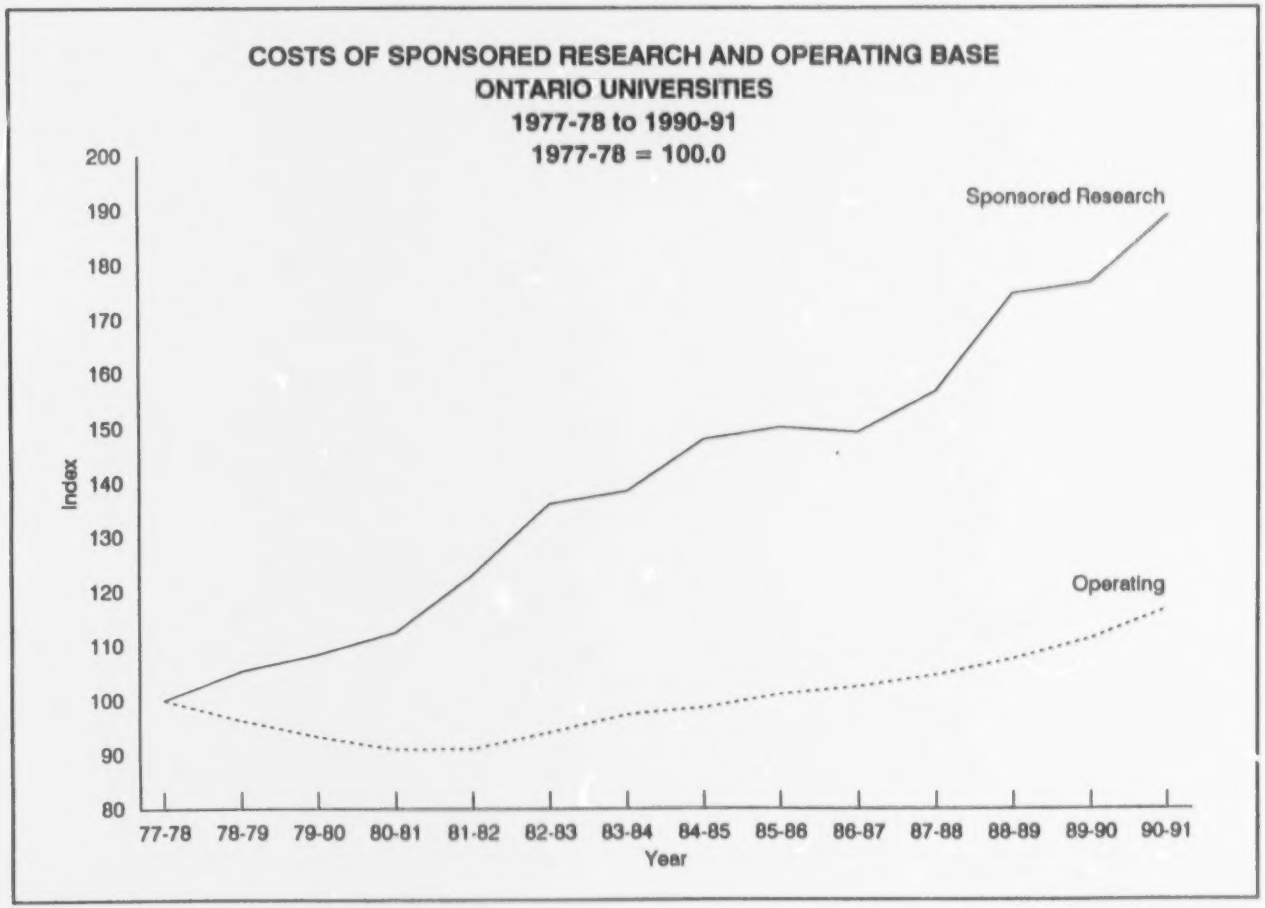
COSTS OF SPONSORED RESEARCH AND OPERATING BASE
ONTARIO UNIVERSITIES
1977-78 to 1990-91
1977-78 = 100.0
Sponsored Research
Operating
Index
200
190
180
170
160
150
140
130
120
110
100
90
80
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

TABLE 22

CAPITAL FORMATION AND CAPITAL STOCK, ONTARIO UNIVERSITIES
($ MILLIONS CURRENT DOLLARS)

	Buildings				Equipment			
Years	End-Year Net Stock	Gross Fixed Capital Formation	Geometric Depreciation*	Net Fixed** Capital Formation	End-Year Net Stock	Gross Fixed Capital Formation	Geometric Depreciation*	Net Fixed** Capital Formation
1980	1,744.9	55.7	101.4	(45.7)	69.4	36.5	19.4	17.1
1981	1,853.8	55.9	108.7	(52.8)	79.8	35.6	23.2	12.4
1982	1,937.5	51.5	114.8	(63.3)	96.4	41.6	28.1	13.5
1983	1,862.8	39.0	111.7	(72.7)	103.4	46.6	29.7	16.9
1984	1,774.6	49.7	107.0	(57.3)	140.5	71.4	40.4	31.0
1985	1,754.4	61.7	106.2	(44.5)	162.9	80.6	48.5	32.1
1986	1,781.0	67.7	108.5	(40.8)	219.3	116.0	64.7	51.3
1987	1,853.6	87.7	113.1	(25.4)	238.4	102.5	76.2	26.3
1988	1,991.8	137.4	120.5	16.9	261.2	113.7	84.4	29.3
1989	2,163.1	153.4	130.9	22.5	282.2	112.9	94.5	18.4
1990***	2,303.2	197.8	138.2	59.6	288.7	107.1	99.9	7.2
1991***	2,495.7	238.2	148.6	89.6	286.3	100.2	101.9	(1.7)

* Capital Consumption Allowances
** Net Fixed Capital Formation equals Gross Fixed Capital Formation minus Depreciation.
*** Estimates for the two most recent years are based respectively on preliminary and expected investment expenditures.

Source: Statistics Canada.

TABLE 23

SALARIES AND WAGES, ONTARIO UNIVERSITIES, 1977-78 TO 1990-91
(1990-91 $ CONSTANT)

	Academic Ranks		Other Instruction & Research		Non-Academic Staff		Total Salaries & Wages	
	Constant Dollars ($000)	Constant Dollars Per FTE Enrolment	Constant Dollars ($000)	Constant Dollars Per FTE Enrolment	Constant Dollars ($000)	Constant Dollars Per FTE Enrolment	Constant Dollars ($000)	Constant Dollars Per FTE Enrolment
1977-78	$788,706	100.0	$88,604	100.0	$580,944	100.0	$1,458,254	100.0
1978-79	761,051	96.3	82,282	92.7	556,708	95.7	1,400,041	95.9
1979-80	734,833	92.4	80,481	90.1	523,973	89.4	1,339,287	91.1
1980-81	717,737	87.2	79,809	86.3	506,991	83.7	1,304,537	85.7
1981-82	717,157	83.1	77,484	79.9	508,234	80.0	1,302,876	81.7
1982-83	742,648	81.6	77,468	75.7	524,731	78.2	1,344,847	79.9
1983-84	754,751	80.3	77,702	73.6	548,768	79.2	1,381,220	79.4
1984-85	761,795	80.6	78,314	73.8	557,120	80.0	1,397,230	80.0
1985-86	774,554	82.6	80,830	76.7	574,889	83.2	1,430,273	82.5
1986-87	792,544	84.2	81,332	76.9	580,755	83.7	1,454,630	83.6
1987-88	815,531	84.2	82,833	76.2	597,104	83.7	1,495,468	83.6
1988-89	841,195	83.7	89,031	78.9	618,577	83.6	1,548,803	83.4
1989-90	861,440	83.0	95,134	81.6	646,305	84.5	1,602,879	83.5
1990-91	888,100	82.3	101,767	83.9	674,971	84.9	1,664,838	83.4

Source: COFO-UO, *Financial Report of Ontario Universities*, various years

TABLE 24

COMPARISON OF BENEFIT COSTS
1977-78 TO 1991-92
($000 CONSTANT 1991-92 DOLLARS)
(EXCLUDING OCA, ALGOMA, NIPISSING, HEARST)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92(e)
STATUTORY BENEFITS															
O.H.I.P.	14,023	14,690	13,063	11,191	11,410	12,931	12,806	13,117	12,870	12,668	12,253	11,831	8,036	0	0
Canada Pension	14,227	13,895	16,597	13,438	13,368	14,125	14,423	15,090	16,148	17,416	17,829	18,898	20,606	22,167	23,522
Workers' Compensation	2,284	2,038	1,990	1,870	2,232	2,549	2,654	3,100	3,630	4,058	4,619	4,862	4,957	5,457	5,594
Unemployment Insurance	17,465	15,911	13,258	15,312	18,426	21,273	27,237	28,517	30,000	30,770	31,476	30,490	29,665	33,818	42,580
Employer Health Tax	0	0	0	0	0	0	0	0	0	0	0	0	11,112	33,049	34,984
Total Statutory Benefits	47,998	46,536	41,909	41,811	45,435	50,878	57,120	59,824	64,647	64,912	53,923	66,081	74,376	94,490	106,680
NON-STATUTORY BENEFITS															
Pension															
- Current Service	86,730	85,954	83,923	80,375	81,774	86,747	89,539	89,414	89,882	88,484	96,248	75,566	75,865	78,341	97,107
- Experience Deficiency	3,645	3,999	999	333	630	625	454	419	(249)	(245)	(236)	(729)	0	0	0
- Past Service Liability	8,349	7,832	4,909	1,577	238	787	987	1,247	0	114	185	(1,211)	317	341	323
Group Life Insurance	9,243	8,342	7,936	7,180	6,317	6,771	6,979	6,559	6,840	6,766	7,149	7,493	8,143	8,688	9,031
Long Term Disability	4,348	4,515	4,440	5,521	5,249	5,877	6,930	6,742	6,666	6,723	6,931	7,421	7,045	7,693	8,121
Dental Insurance	2,944	4,670	4,637	5,408	7,034	7,973	8,281	9,029	10,318	11,305	12,155	12,593	14,413	14,977	16,472
Extended Health Care	2,599	2,268	2,162	3,018	3,362	4,217	4,631	5,448	6,748	7,288	7,877	9,109	10,467	12,580	15,144
Tuition Remission	1,154	2,117	3,421	3,461	4,264	4,340	4,541	5,540	5,649	5,544	5,095	5,629	5,825	6,466	6,910
Other	1,168	1,044	1,248	1,192	1,575	1,489	1,263	589	1,644	(4,055)	(23,173)	(351)	1,066	478	5,685
Total Non-statutory Benefits	120,183	120,744	113,676	108,065	110,445	118,826	123,605	124,987	127,498	121,923	112,230	115,521	123,140	129,564	158,993
Total Benefits	168,181	167,280	155,585	149,875	155,880	169,704	180,725	184,811	192,145	186,836	166,154	181,601	197,516	224,054	265,673

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TABLE 25

PERCENTAGE DISTRIBUTION OF TOTAL BENEFIT COSTS
1977-78 TO 1991-92
($000 CONSTANT 1991-92 DOLLARS)
(EXCLUDING OCA, ALGOMA, NIPISSING, HEARST)

	1977 -78	1978 -79	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88	1988 -89	1989 -90	1990 -91	1991- 92(e)
STATUTORY BENEFITS															
O.H.I.P.	8.3	8.8	8.4	7.5	7.3	7.6	7.1	7.1	6.7	6.8	7.4	6.5	4.1	0.0	0.0
Canada Pension	8.5	8.3	8.7	9.0	8.6	8.3	8.0	8.2	9.4	9.3	10.7	10.4	10.4	9.9	8.9
Workers' Compensation	1.4	1.2	1.3	1.3	1.4	1.5	1.5	1.7	1.9	2.2	2.8	2.7	2.5	2.4	2.1
Unemployment Insurance	10.4	9.5	8.5	10.2	11.8	12.5	15.1	15.4	15.6	16.5	18.9	16.8	15.0	15.1	16.0
Employer Health Tax	-	-	-	-	-	-	-	-	-	-	-	-	5.6	14.8	13.2
Total Statutory Benefits	28.5	27.8	26.9	27.9	29.2	30.0	31.6	32.4	33.6	34.7	32.5	36.4	37.7	42.2	40.2
NON-STATUTORY BENEFITS															
Pension															
- Current Service	51.6	51.4	53.9	53.6	52.5	51.1	49.5	48.4	46.8	47.4	57.9	41.6	38.4	35.0	36.6
- Experience Deficiency	2.2	2.4	0.6	0.2	0.4	0.4	0.3	0.2	-0.1	-0.1	-0.1	-0.4	0.0	0.0	0.0
- Past Service Liability	5.0	4.7	3.2	1.1	0.2	0.5	0.6	0.7	0.0	0.1	0.1	-0.7	0.2	0.2	0.1
Group Life Insurance	5.5	5.0	5.1	4.8	4.1	4.0	3.9	3.8	3.8	3.8	4.3	4.1	4.1	3.9	3.4
Long Term Disability	2.6	2.7	2.9	3.7	3.4	3.5	3.8	3.7	3.5	3.8	4.2	4.1	3.6	3.4	3.1
Dental Insurance	1.8	2.8	3.0	3.6	4.5	4.7	4.6	4.9	5.4	6.1	7.3	6.9	7.3	6.7	6.2
Extended Health Care	1.6	1.4	1.4	2.0	2.2	2.5	2.6	3.C	3.5	3.9	4.7	5.0	5.3	5.6	5.7
Tuition Remission	0.7	1.3	2.2	2.3	2.7	2.6	2.5	3.0	2.9	3.0	3.1	3.1	3.0	2.9	2.6
Other	0.7	0.6	0.8	0.8	1.0	0.9	0.7	0.3	0.9	-2.2	-14.0	-0.2	0.5	0.2	2.2
Total Non-statutory Benefits	71.5	72.2	73.1	72.1	70.9	70.0	68.4	67.6	66.4	65.3	67.6	63.6	62.3	57.8	59.9
Total Benefits	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

FIGURE 19

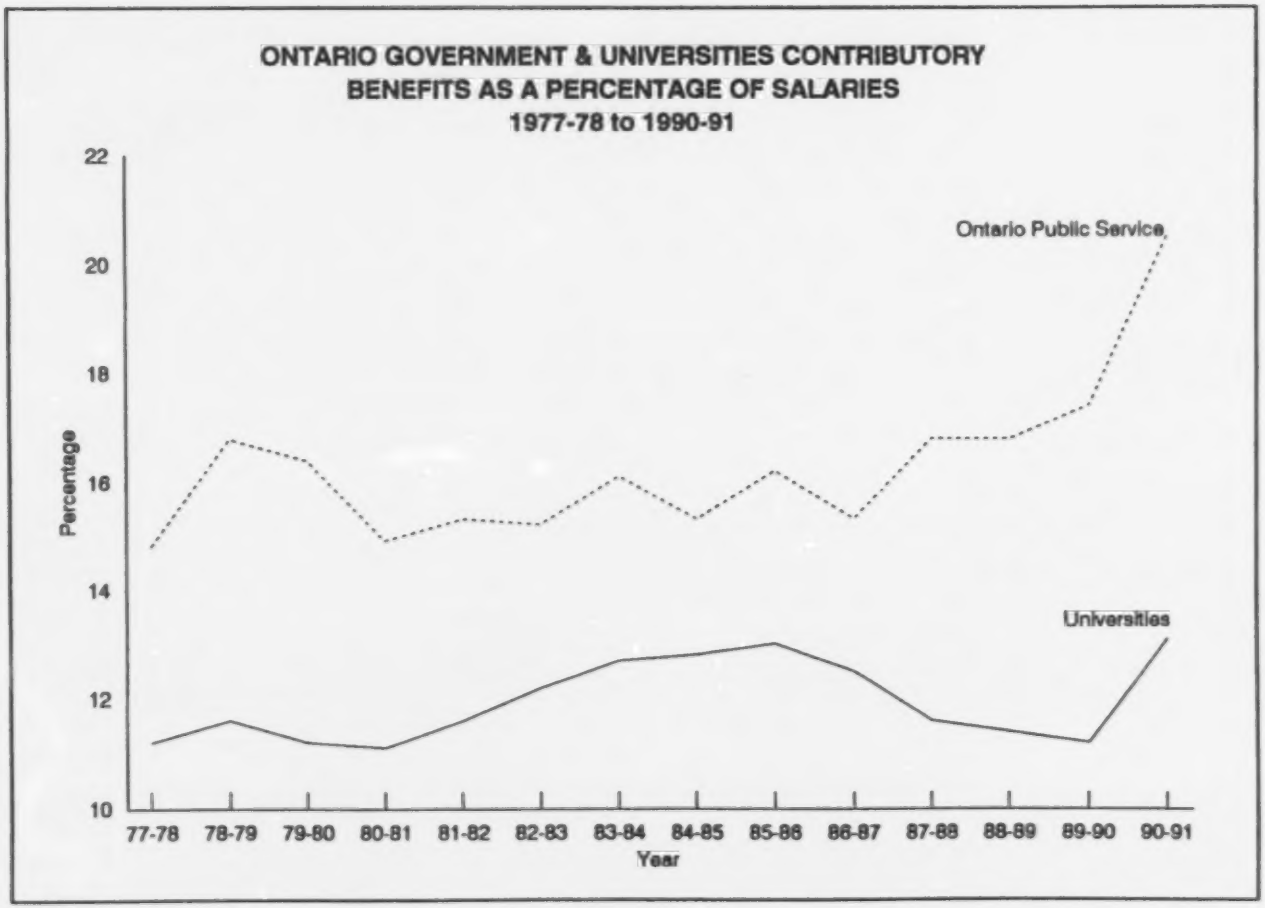

ONTARIO GOVERNMENT & UNIVERSITIES CONTRIBUTORY
BENEFITS AS A PERCENTAGE OF SALARIES
1977-78 to 1990-91
Percentage
22
20
18
16
14
12
10
Ontario Public Service
Universities
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

FIGURE 20

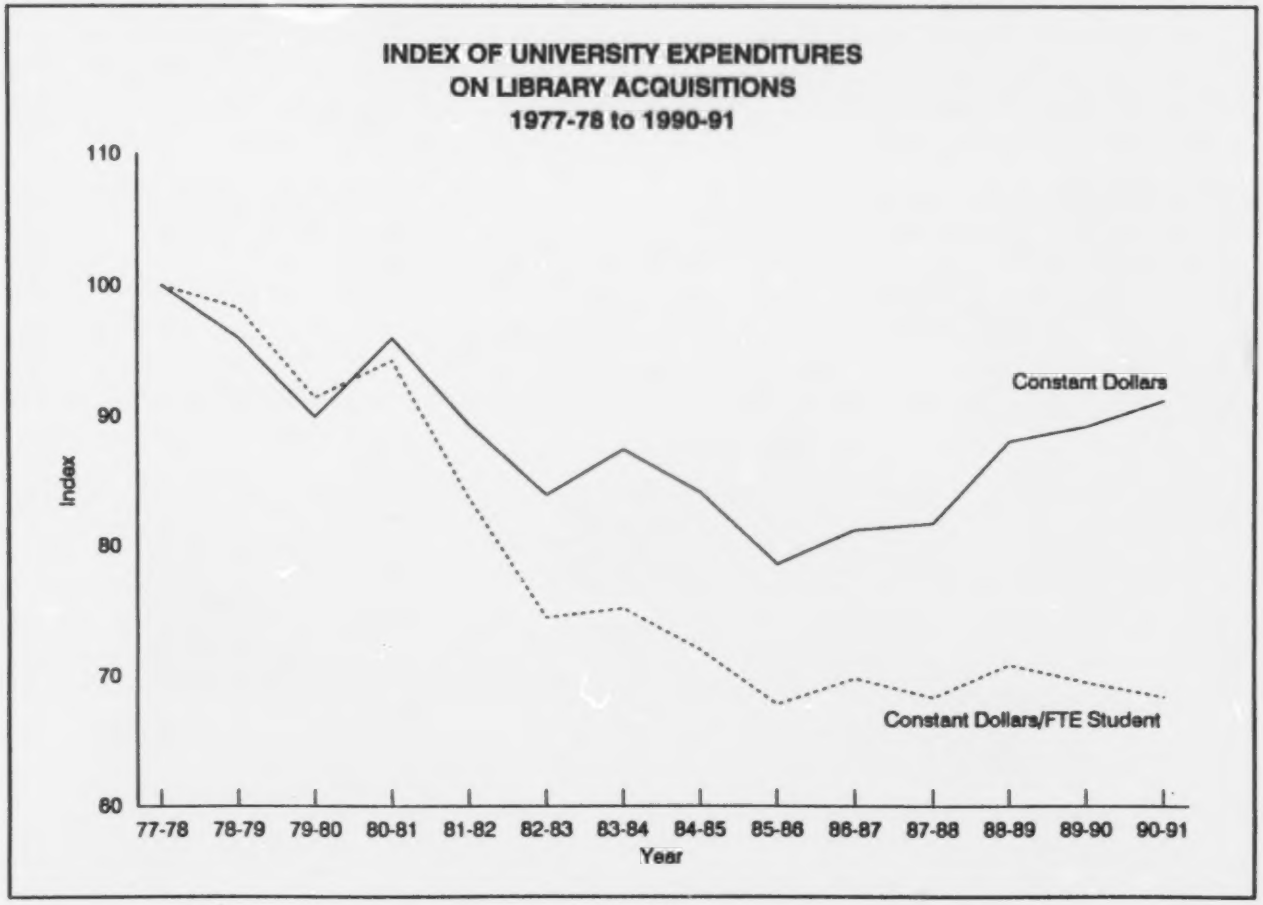

INDEX OF UNIVERSITY EXPENDITURES
ON LIBRARY ACQUISITIONS
1977-78 to 1990-91
110
100
90
80
70
60
Index
Constant Dollars
Constant Dollars/FTE Student
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

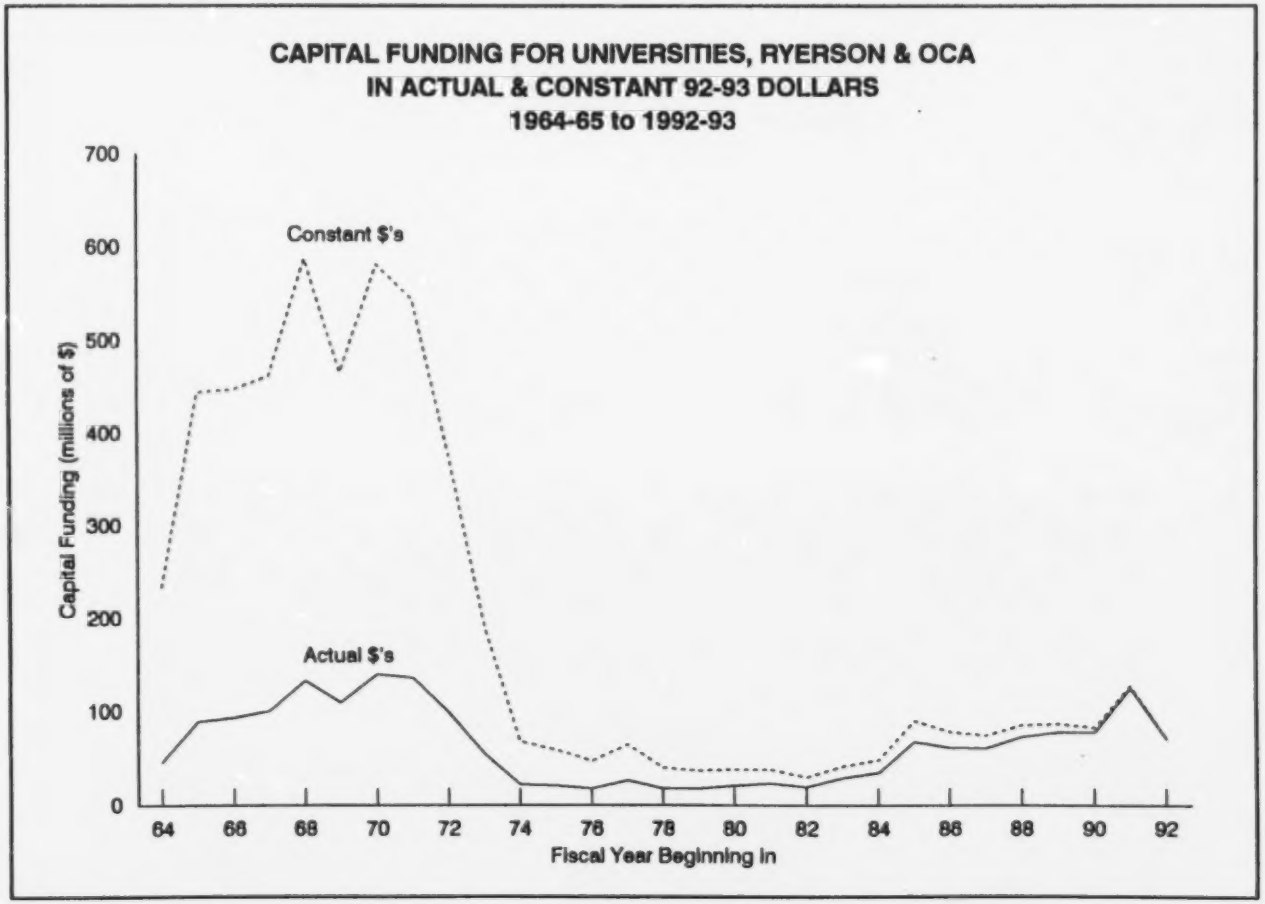
TABLE 26

EXPENDITURES ON LIBRARY ACQUISITIONS
ONTARIO UNIVERSITIES, 1977-78 TO 1990-91

	Acquisitions as % of Total Operating Expenses	Constant Dollars	Constant Dollars per FTE	Cost Index
1977-78	2.0	100.0 .	100.0	100.0
1978-79	2.1	96.0	98.3	115.4
1979-80	2.2	89.9	91.4	136.5
1980-81	2.3	95.9	94.2	148.0
1981-82	2.2	89.3	83.6	168.8
1982-83	2.1	83.9	74.5	198.1
1983-84	2.2	87.4	75.2	214.3
1984-85	2.2	84.1	72.0	236.7
1985-86	2.2	78.6	67.8	263.8
1986-87	2.2	81.2	69.8	278.5
1987-88	2.2	81.7	68.3	293.3
1988-89	2.3	88.0	70.8	295.3
1989-90	2.2	89.2	69.5	308.5
1990-91	2.1	91.2	68.4	320.6

Source: COFO-UO Financial Report of Ontario Universities, various years.
Bowker (U.S.) Hardcover Book and Periodical.
Price Indices converted for Canadian dollar fluctuations.

FIGURE 21


CAPITAL FUNDING FOR UNIVERSITIES, RYERSON & OCA
IN ACTUAL & CONSTANT 92-93 DOLLARS
1964-65 to 1992-93
Capital Funding (millions of $)
700
600
500
400
300
200
100
0
Constant $'s
Actual $'s
64
66
68
70
72
74
76
78
80
82
84
86
88
90
92
Fiscal Year Beginning in

57

TABLE 27

CAPITAL FUNDING FOR UNIVERSITIES, RYERSON, OCA
1964-65 TO 1992-93

	Capital Funding ($000)	Constant 1992-93 dollars ($000)
1964-65	45,600.0	233,529.3
1965-66	89,239.0	443,828.0
1966-67	93,105.0	447,100.8
1967-68	99,995.0	461,584.3
1968-69	132,974.0	587,569.3
1969-70	109,253.0	465,323.2
1970-71	139,805.0	581,303.5
1971-72	136,047.0	544,804.2
1972-73	98,712.0	375,979.7
1973-74	54,492.0	190,744.7
1974-75	21,642.0	67,950.1
1975-76	20,593.2	58,797.3
1976-77	17,618.7	47,119.8
1977-78	26,089.6	64,229.5
1978-79	17,498.4	39,471.7
1979-80	17,740.5	36,638.5
1980-81	20,387.0	37,893.7
1981-82	22,891.7	37,922.7
1982-83	19,620.3	29,710.5
1983-84	28,960.0	41,725.3
1984-85	34,742.6	48,177.9
1985-86	67,225.8	89,550.1
1986-87	61,217.2	78,260.2
1987-88	60,653.0	74,342.2
1988-89	72,700.0	85,516.5
1989-90	77,700.0	86,797.7
1990-91	77,700.0	82,585.8
1991-92	124,557.4	127,297.6
1992-93(e)	70,500.0	70,500.0

Source: Ministry of Colleges and Universities
Expenditure Estimates 1992-93

TABLE 28

BUILDINGS, LAND AND SITE SERVICES
TOTAL EXPENSES PER FTE STUDENT BY PROVINCE
1977-78 TO 1990-91
($000 CONSTANT 1990-91 DOLLARS)

Province	1977 -78	1978 -79	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88	1988 -89	1989 -90	1990 -91	Total	Rank
British Columbia	1,347	1,276	1,257	1,895	1,495	941	502	979	1,092	467	383	1,220	911	998	14,764	(4)
Alberta	675	988	1,710	1,598	1,802	1,934	1,828	1,201	1,348	2,301	1,252	611	565	463	18,277	(2)
Saskatchewan	1,142	1,488	1,971	1,715	670	346	519	720	790	1,156	794	1,019	2,785	1,451	16,567	(3)
Manitoba	195	157	644	120	366	233	502	732	405	526	279	306	168	248	4,880	(8)
Quebec	1,424	1,595	693	465	242	326	216	326	246	265	216	371	511	645	7,541	(6)
New Brunswick	25	231	527	61	36	237	459	238	548	543	866	531	80	40	4,421	(10)
Prince Edward Island	89	62	1,164	334	0	288	113	239	986	20,913	1,608	1,265	2,343	507	29,911	(1)
Nova Scotia	553	1,490	1,506	1,275	831	230	31	116	345	514	519	578	181	51	8,222	(5)
Newfoundland	229	250	177	190	148	332	626	198	587	512	1,414	1,641	637	552	7,493	(7)
9-Provinces	1,002	1,226	1,018	891	685	610	532	563	589	821	537	622	665	609	10,370	
Ontario	482	261	201	371	222	180	136	155	319	438	334	384	554	757	4,794	(9)
Canada	785	828	684	678	495	436	374	402	484	674	459	529	621	668	8,117	

Source: Statistics Canada
Canadian Association of University Business Officers

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FIGURE 22

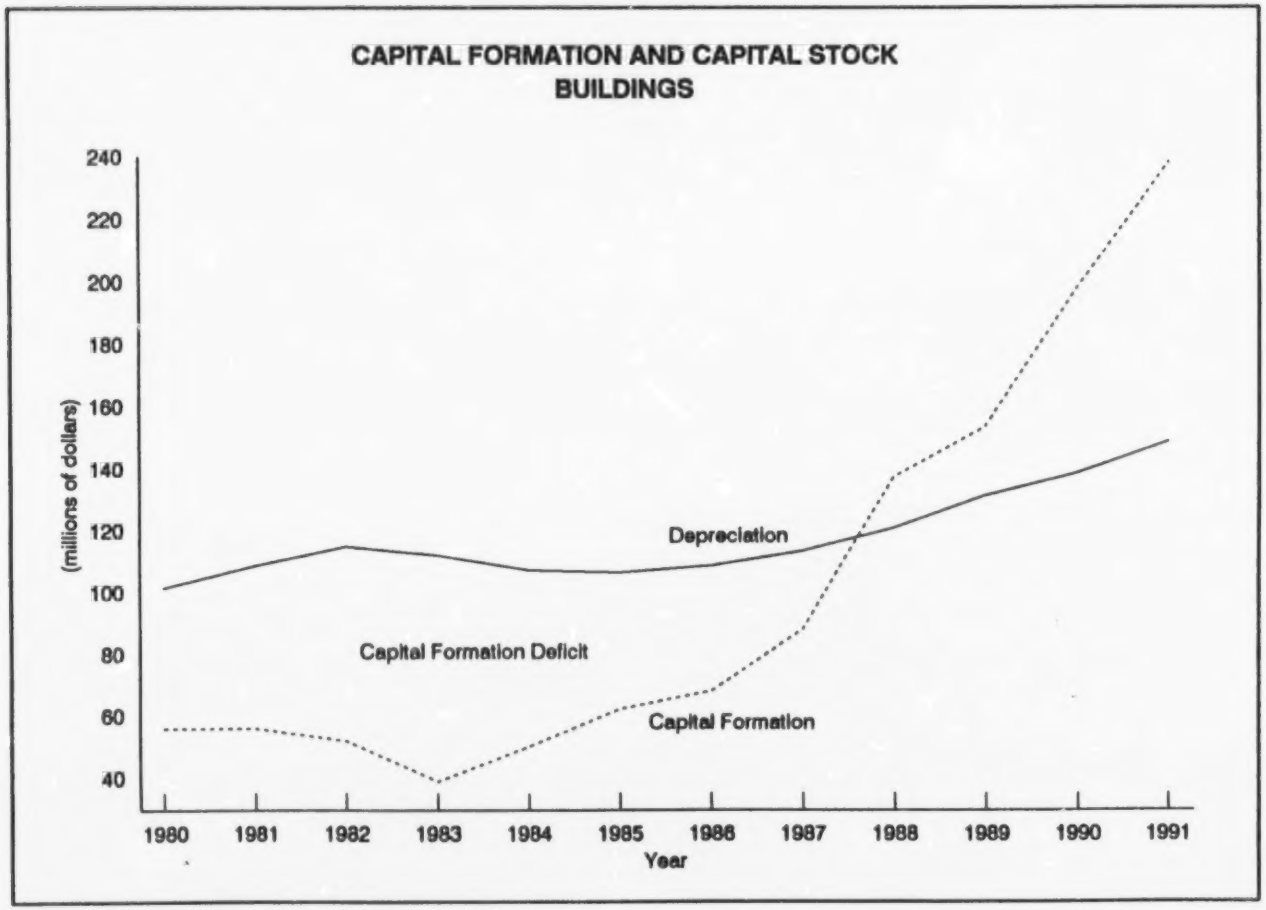
CAPITAL FORMATION AND CAPITAL STOCK
BUILDINGS
240
220
200
180
160
140
120
100
80
60
40
(millions of dollars)
Depreciation
Capital Formation Deficit
Capital Formation
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
Year

TABLE 29

COSTS OF SPONSORED RESEARCH AND THE OPERATING BASE
1977-78 TO 1990-91

	Sponsored Research Expenses		Operating Expenses	
	Constant Dollars (1990-91) $000	Percentage Growth from 1977-78	Constant Dollars (1990-91) $000	Percentage Growth from 1977-78
1977-78	291,097	-	2,012,063	-
1978-79	306,836	+ 5.4	1,936,516	-3.8
1979-80	315,605	+ 8.4	1,872,328	-6.9
1980-81	327,121	+12.4	1,826,672	-9.2
1981-82	358,073	+23.0	1,829,282	-9.1
1982-83	395,848	+36.0	1,891,859	-6.0
1983-84	402,877	+38.4	1,958,505	-2.7
1984-85	430,569	+47.9	1,984,617	-1.4
1985-86	436,951	+50.1	2,033,680	+1.1
1986-87	434,004	+49.1	2,062,564	+2.5
1987-88	455,509	+56.5	2,105,066	+4.6
1988-89	508,154	+74.6	2,162,245	+7.5
1989-90	513,938	+76.5	2,237,792	+11.2
1990-91	550,363	+89.1	2,348,260	+16.7

Source: COFO-UO, *Financial Report of Ontario Universities*, various years.

APPENDIX

APPENDIX

UPDATE OF THE

ONTARIO UNIVERSITY NON-SALARY PRICE INDEX

The Ontario University Non-Salary Price Index was developed in 1978 to provide "a more sensitive tool to assist in measuring the likely impact of inflation on non-salary expenditure, and a more accurate measure of the extent of inflationary erosion between any two years".* The OUNSPI measures both component and global price changes for university non-salary expenditure. The components include library acquisitions, equipment and furniture, operational supplies and expenses, utilities, renovations, alterations, and major repairs, externally contracted services, travel, insurance and space rental. In 1984, the OUNSPI was revised to take account of altered patterns of expenditure.

Figure A-1 compares the growth of the OUNSPI with that of the Consumer Price Index for Canada between 1977-78 and 1992-93.

Figure A-2 identifies the sources of information for the various components employed in OUNSPI and indicates the index weights employed for each component in the calculation of the overall, non-salary price index.

Table A-1 compares the growth of the OUNSPI with that of the CPI for Canada between 1977-78 and 1992-93.

Table A-2 provides information on the annual percentage variations of the components of the OUNSPI to 1990-91.

Table A-3 provides an update of the index values for each component of the OUNSPI based on 1980-81 being equal to 100.0.

* Council of Ontario Universities, *Ontario University Non-Salary Price Index*, February 1978.

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FIGURE A-1

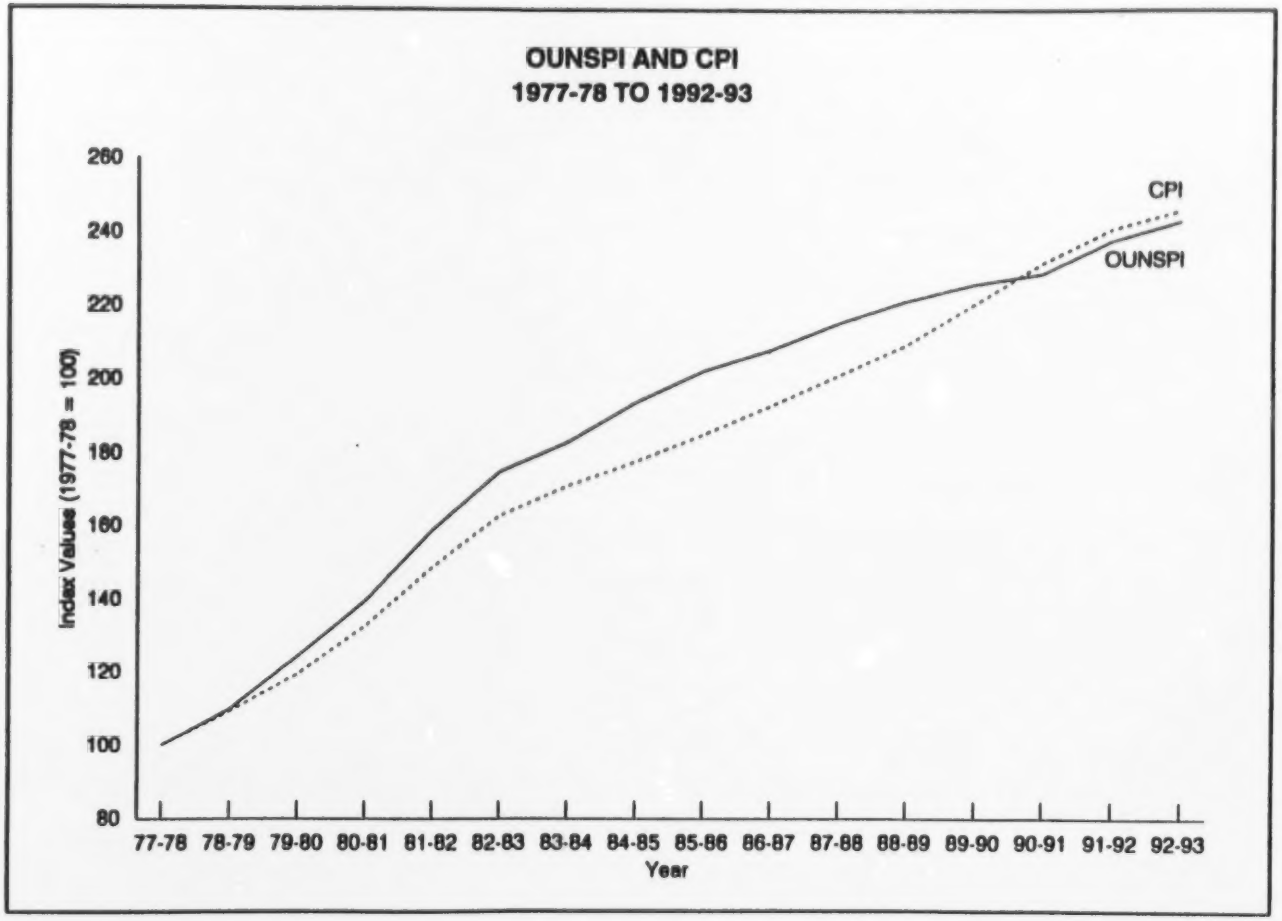
OUNSPI AND CPI
1977-78 TO 1992-93
260
240
220
200
180
160
140
120
100
80
Index Values (1977-78 = 100)
CPI
OUNSPI
77-78 78-79 79-80 80-81 81-82 82-83 83-84 84-85 85-86 86-87 87-88 88-89 89-90 90-91 91-92 92-93
Year

FIGURE A-2

SOURCE AND WEIGHTING PATTERN OF COMPONENT INDICES

Component	Index Weights	Source
Books	7	Bowker (U.S.) Hardcover Book Price Index, converted for Canadian dollar fluctuations.
Periodicals	7	Bowker (U.S.) Periodical Price Index, converted for Canadian dollar fluctuations.
Equipment	10	U.S. Department of Commerce. Survey of Current Business. Price index for machinery and equipment, converted for Canadian dollar fluctuations.
Computing	10	Research Associates of Washington. Higher Education Prices and Price Indexes: 1986 Update. Data processing hardware. Converted for Canadian dollar fluctuations. Statistics Canada Industrial Product Price Index - Electronic Computing and Peripheral Equipment Industry.
Furniture	2	Statistics Canada Industrial Product Price Index - Office Furniture Industries.
Stationery and Paper	8	Statistics Canada Industrial Product Price Index - Paper and Allied Product Industries.
Printing Materials	7	Statistics Canada Industrial Product Price Index - Fine Papers.
Tools and Apparatus	8	Statistics Canada Industrial Product Price Index - Hardware, Tool and Cutlery Industries.
Chemicals	4	Statistics Canada Industrial Product Price Index - Chemical & Chemical Products Industries.
Postage	3	Statistics Canada Consumer Price Index - Postal Services
Long Distance	2	Statistics Canada Consumer Price Index - Communications.
Electricity	9	Statistics Canada Industry Selling Price Index - Electric Power Selling Price Index (Non-Residential) over 5,000 KW - Ontario.
Gas	7	Statistics Canada Consumer Price Index - Piped and Bottled Gas.
Oil	1	Statistics Canada Industrial Product Price Index - Heavy Fuel Oil.
Telephone	4	Statistics Canada Consumer Price Index - Communications.
Water	1	Statistics Canada Consumer Price Index - Water.
Renovations	3	Statistics Canada, Construction Building Material Price Index - Non-Residential, Historical Non-Residential Price Deflators.
Transportation	3	Statistics Canada Consumer Price Index - Transportation.
Shelter	1	Statistics Canada Consumer Price Index - Shelter.
Food Away From Home	1	Statistics Canada Consumer Price Index - Food Purchased From Restaurants.
Insurance	1	Statistics Canada Consumer Price Index - Homeowner's Insurance Premiums.
Space Rental	1	Statistics Canada Consumer Price Index - Shelter.

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TABLE A-1

CONSUMER PRICE INDEX AND THE
ONTARIO UNIVERSITY NON-SALARY PRICE INDEX
(1980-81 = 100)

Year	OUNSPI	CPI	OUNSPI Annual % Increase	CPI Annual % Increase
Actual				
1970-71	37.8	44.7	-	-
1971-72	39.5	46.4	4.4	3.9
1972-73	40.8	48.8	3.4	5.1
1973-74	45.4	53.1	11.2	8.9
1974-75	52.9	59.2	16.6	11.4
1975-76	58.6	65.1	10.9	10.0
1976-77	63.9	69.5	8.9	6.8
1977-78	71.8	75.5	12.3	8.6
1978-79	78.8	82.4	9.9	9.1
1979-80	89.1	90.0	13.1	9.2
1980-81	100.0	100.0	12.2	11.2
1981-82	113.9	112.2	13.9	12.2
1982-83	125.5	122.7	10.2	9.4
1983-84	131.2	129.0	4.5	5.1
1984-85	139.0	134.0	6.0	3.9
1985-86	145.2	139.5	4.4	4.1
1986-87	149.2	145.4	2.8	4.2
1987-88	154.4	151.6	3.5	4.3
1988-89	158.8	158.0	2.8	4.2
1989-90	162.1	166.4	2.1	5.3
1990-91	164.2	174.9	1.3	5.1
1991-92(e)	170.8	181.9	4.0	4.0
1992-93(e)	174.5	185.9	2.2	2.2

e = estimate

TABLE A-2

ANNUAL PERCENTAGE VARIATION IN THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX COMPONENTS

Component	1971 - 72	1972 - 73	1973 - 74	1974 - 75	1975 - 76	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81	1981 - 82	1982 - 83	1983 - 84	1984 - 85	1985 - 86	1986 - 87	1987 - 88	1988 - 89	1989 - 90	1990 -91
Books	9.9	-3.7	-5.3	13.0	19.5	4.1	19.2	9.5	25.2	3.5	10.7	17.1	3.2	2.5	9.2	2.1	6.5	-0.2	1.7	-3.4
Periodicals	8.3	11.3	23.7	6.9	17.1	9.5	17.8	22.3	11.0	14.5	16.1	17.6	12.5	16.7	13.0	7.9	4.6	1.3	7.0	7.6
Equipment	1.4	0.4	5.2	19.2	13.1	4.6	16.5	15.0	11.1	12.5	15.3	7.3	2.9	9.1	5.8	0.6	-3.2	-4.4	1.2	0.8
Computing	1.9	1.4	1.2	3.4	7.9	0.5	9.1	6.2	5.9	19.8	14.9	3.4	-0.2	2.6	2.2	1.9	0.0	2.7	2.2	-3.4
Furniture	5.0	4.7	11.0	14.8	8.5	6.1	4.9	7.0	12.8	10.4	12.3	7.1	4.5	6.7	6.0	4.7	3.1	4.1	3.5	3.2
Stationery and Paper	1.1	2.0	20.3	33.8	9.0	3.6	5.0	9.9	17.3	14.1	9.0	-0.6	0.9	10.7	-0.5	6.9	9.9	7.5	1.4	-3.4
Printing Materials	1.7	4.5	22.7	23.5	2.2	-0.7	4.2	7.2	14.2	10.0	10.3	2.6	2.7	6.7	0.1	6.0	5.2	10.7	-0.3	-1.6
Tools and Apparatus	3.2	2.3	6.8	16.0	10.9	6.5	11.6	10.6	16.7	14.3	11.6	6.3	4.3	5.9	5.1	3.5	3.7	6.0	3.7	2.7
Chemicals	1.1	1.8	11.0	30.5	10.0	4.2	6.0	8.7	16.7	15.0	12.7	5.0	3.3	2.7	2.1	0.1	6.1	8.7	-2.5	1.3
Postage	12.3	7.6	-	-	0.4	19.3	25.3	17.0	19.6	0.2	24.2	40.9	5.1	0.0	10.7	2.5	7.7	3.7	2.0	4.6
Long Distance	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6	-0.2	-2.7	-1.4	-0.5
Electricity	4.9	6.9	8.0	8.2	9.4	28.3	28.3	5.3	10.4	11.7	9.8	9.7	8.3	8.1	6.5	4.6	5.5	5.4	5.8	7.8
Gas	1.5	0.4	4.9	12.4	25.8	22.1	15.6	14.6	5.5	17.9	26.5	22.0	5.0	1.4	0.0	-0.6	-1.9	-2.5	-5.7	-1.0
Oil	11.7	-3.3	54.4	52.1	10.1	16.5	20.6	14.8	26.8	22.4	24.6	7.4	13.7	11.9	-5.2	-37.6	12.7	-15.2	13.2	5.0
Telephone	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6	-0.2	-2.7	-1.4	-0.5
Water	.	.	.	7.7	8.5	12.3	11.7	7.6	7.3	8.3	12.4	11.7	6.7	6.5	6.5	3.1	2.2	7.2	8.1	9.1
Renovations	4.4	5.2	11.9	19.0	5.5	5.6	6.8	11.1	15.1	9.4	9.7	4.8	4.6	3.3	4.4	5.0	4.8	5.5	3.1	3.3
Transportation	3.9	1.8	5.0	11.0	12.2	9.2	6.0	6.6	11.4	14.4	18.1	10.7	4.7	3.9	5.0	2.0	4.4	1.9	6.3	4.8
Shelter	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3	4.7	4.9	6.0	5.4
Food Away From Home	4.5	7.6	15.7	18.4	11.9	7.4	5.3	8.7	12.1	8.5	9.9	9.6	4.5	4.0	4.3	4.9	3.6	5.2	5.1	7.3
Insurance	28.5	20.9	22.4	13.2	26.0	21.2	12.2	5.9	5.8	8.9	20.0	6.4	5.6	2.8	5.4	10.5	13.0	8.7	6.8	-1.9
Space Rental	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3	4.7	4.9	6.0	5.4

e = estimated figure

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TABLE A-3

COMPONENT PRICE INDICES IN THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX
(BASED ON THE FISCAL YEAR 1980-81 = 100.0)

	1970 - 71	1971 - 72	1972 - 73	1973 - 74	1974 - 75	1975 - 76	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81	1981 - 82	1982 - 83	1983 - 84	1984 - 85	1985 - 86	1986 - 87	1987 - 88	1988 - 89	1989 - 90	1990 -91
Books	42.0	46.1	44.4	42.0	47.5	56.8	59.1	70.5	77.2	86.6	100.0	110.7	129.6	133.8	137.2	149.8	153.0	162.9	162.5	165.3	159.7
Periodicals	26.7	29.0	32.2	39.8	42.6	49.9	54.6	64.3	78.7	87.4	100.0	116.1	136.5	153.6	179.3	202.7	218.6	228.6	231.6	247.8	266.7
Equipment	39.6	40.1	40.3	42.4	50.5	57.1	59.7	69.6	80.0	88.8	100.0	115.3	123.6	127.2	138.8	146.9	147.8	143.0	136.7	138.3	139.5
Computing	58.0	59.1	60.0	60.7	62.7	67.7	68.0	74.2	78.8	83.5	100.0	114.9	116.8	118.6	121.6	124.3	126.6	126.7	130.1	133.0	128.5
Furniture	44.4	46.6	48.8	54.1	62.1	67.4	71.5	75.0	80.3	90.5	100.0	112.3	120.3	125.7	134.1	142.1	146.8	153.4	159.8	165.3	170.7
Stationery and Paper	34.5	34.9	35.6	42.8	57.3	62.4	64.7	68.0	74.7	87.6	100.0	109.0	108.4	108.3	121.0	120.4	136.7	141.5	152.0	154.2	149.0
Printing Materials	43.6	44.4	46.4	56.9	70.3	71.8	71.3	74.2	79.6	90.9	100.0	110.3	113.2	116.2	124.0	124.2	131.6	139.5	153.3	152.9	150.5
Tools & Apparatus	39.3	40.6	41.5	44.3	51.4	57.1	60.7	67.8	74.9	87.5	100.0	111.6	120.9	126.1	133.5	140.2	145.1	150.5	159.5	165.3	169.8
Chemicals	37.9	38.3	39.0	43.3	56.4	62.1	64.7	68.6	74.5	86.9	100.0	112.7	118.3	122.2	125.6	128.2	128.3	136.1	148.0	144.3	146.2
Postage	39.3	44.2	47.5	47.5	47.5	47.7	56.9	71.3	83.4	99.8	100.0	124.2	175.0	183.9	183.9	203.7	208.8	224.9	233.3	238.1	249.1
Long Distance	65.2	66.9	69.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7	137.5	133.7	131.8	131.2
Electricity	32.7	34.3	36.6	39.6	42.8	46.8	60.0	77.0	81.1	89.5	100.0	109.8	120.5	130.5	141.1	150.2	157.2	165.9	174.9	185.0	199.4
Gas	32.9	33.4	33.5	35.1	39.5	49.7	60.7	70.2	80.4	84.8	100.0	126.5	154.3	162.0	164.3	164.3	163.3	160.2	156.2	147.3	145.9
Oil	14.0	15.7	15.2	23.4	35.6	39.2	46.5	56.2	64.5	81.7	100.0	124.6	133.8	152.2	170.3	161.5	100.7	113.5	96.3	108.9	114.4
Telephone	65.2	66.9	69.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7	137.5	133.7	131.8	131.2
Water	54.5	54.5	54.5	54.5	58.7	63.7	71.6	80.0	86.0	92.3	100.0	112.4	125.5	134.0	142.8	152.1	156.8	160.2	171.8	185.6	202.4
Renovations	41.1	42.9	45.1	50.5	60.0	63.4	66.9	71.5	79.4	91.4	100.0	109.7	115.0	120.2	124.2	129.6	136.1	142.7	150.5	155.2	160.3
Transportation	46.0	47.7	48.6	51.1	56.7	63.6	69.5	73.7	78.5	87.4	100.0	118.1	130.7	136.7	142.1	149.2	152.1	158.7	161.7	171.8	180.0
Shelter	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3	153.2	160.7	170.4	179.5
Food Away From Home	38.8	40.5	43.6	50.4	59.7	66.8	71.8	75.6	82.2	92.1	100.0	109.9	120.4	125.8	130.9	136.5	143.2	148.4	156.1	164.0	176.0
Insurance	22.2	26.6	34.5	42.3	47.8	60.3	73.0	82.0	86.8	91.9	100.0	120.0	130.1	137.3	141.2	148.8	164.5	185.8	201.9	215.7	211.6
Space Rental	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3	153.2	160.7	170.4	179.5

e = estimated figure